

CORNELL

U N I V E R S I T Y



College of Veterinary Medicine

1997–1998 Catalog

Cover: *(left)* John Saidla, DVM, recipient of the 1997 Norden Distinguished Teacher Award, and DVM students Lori Bradshaw, Class of 1999, and Christopher Reetz, Class of 1999, examining Peter Rabbit, poodle.

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Mission

*To advance animal
and human health
through education,
research, and
public service.*

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Today, more than 700 faculty and staff members at the College of Veterinary Medicine work together to provide teaching, research, and professional service programs that are recognized as among the best in the world.

Veterinary Medicine at Cornell

Approximately
320 women
and men are
enrolled in
Cornell's
DVM
program.

History

The College of Veterinary Medicine at Cornell University has a rich heritage and distinguished record in education, research, and professional service. The history of the teaching of veterinary medicine at Cornell predates the establishment of the college in 1894. Shortly after the university was founded in 1865, Ezra Cornell

insisted that a chair of veterinary medicine be instituted. His own experience as an owner of purebred livestock had taught him the importance of animal health, and he instructed Andrew D. White, the university's first president, to seek the best-qualified person to teach courses in veterinary medicine and surgery.

President White secured the services of Dr. James Law, an already distinguished veterinarian and teacher of his day, who was a graduate of the Edinburgh Veterinary College in Scotland. Dr. Law became the first professor of veterinary medicine in the United States, and thus Cornell was the first American university to accord veterinary medicine equal rank with other sciences.

When the university opened in the fall of 1868, Dr. Law's first classes included students

who were working toward degrees in agriculture and the biological sciences, as well as those pursuing veterinary degrees. At Law's urging, Cornell set much higher requirements for a veterinary degree than any other institution at that time. Four years of study were required for a Bachelor of Veterinary Science (BVSc) and an additional two years for a Doctor of Veterinary Medicine (DVM). In 1876, Cornell was the first university in the United States to award a DVM degree — to Daniel E. Salmon, who had been a member of the university's first entering class and received the BVSc degree in 1872. Dr. Salmon became the founding chief of the US Bureau of Animal Industry and is best known today for identifying the infectious pathogen *Salmonella* and pioneering the fight against contagious diseases.

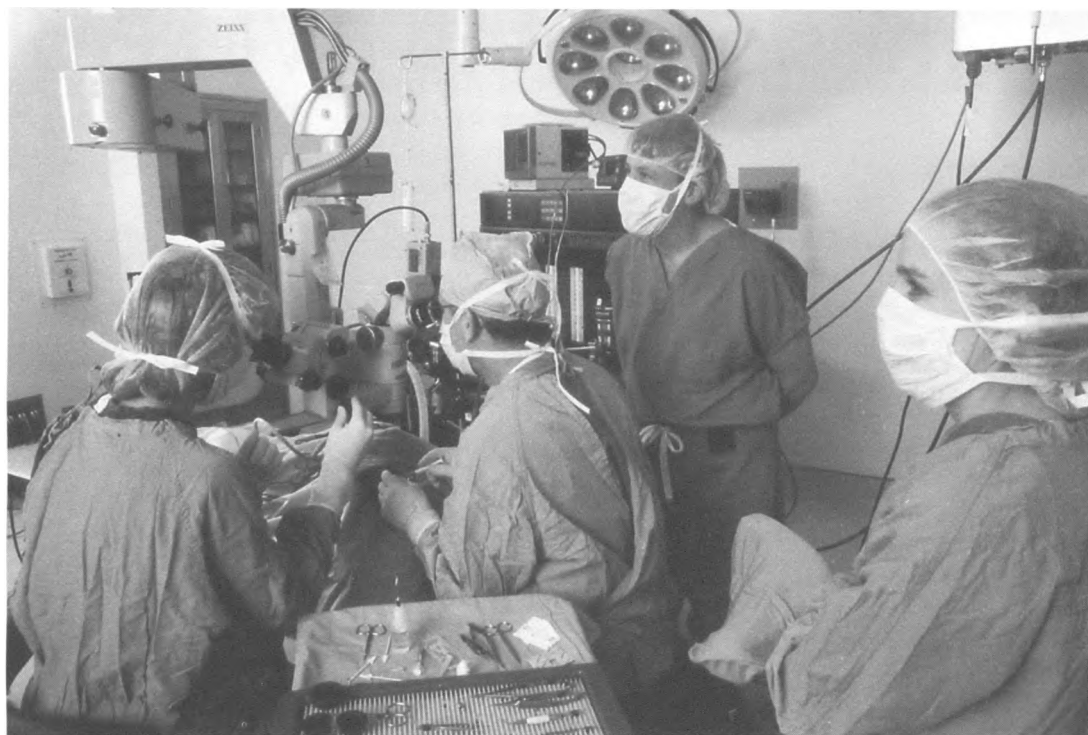


Nearly
70 percent
of Cornell's
veterinary
students
are women.

Funding to construct a veterinary building was provided by the state in 1894 at the time of the establishment of the New York State Veterinary College. When the college first opened for classes in the fall of 1896, there were six professors, two instructors, and 11 students. The scholastic requirement for entrance was a high school diploma, a high standard at the time.

Women have played an important role in the college since its early days. Florence Kimball, the first woman in the United States to receive the DVM degree, graduated from Cornell in 1910. Seven of the first 11 women to become licensed veterinarians in this country were Cornell graduates.

The college remained at its original site at the southeast corner of East Avenue and Tower Road until 1957, when it moved to its present site at the east end of Tower Road.



Learn more about the
College of Veterinary Medicine
on the World Wide Web at
<http://www.vet.cornell.edu/>

In the Spirit of the Ivy League

Today, more than 700 faculty and staff members work together to provide teaching, research, and professional service programs that are recognized as among the best in the world. The College of Veterinary Medicine at Cornell is one of 27 veterinary colleges and schools in the United States and one of only three in the Northeast. Renovations and expansions have made the college a state-of-the-art veterinary education center.

Approximately 320 women and men are enrolled in the four-year professional education

program leading to the Doctor of Veterinary Medicine degree. Approximately 70 percent of Cornell's veterinary students are women. The veterinary medical curriculum includes classroom and laboratory instruction and clinical rotations in our Veterinary Medical Teaching Hospital. The curriculum was modified for students arriving in the fall of 1993, making it more flexible and providing greater opportunities for students to learn in an interactive, case-based educational environment.

Approximately 100 graduate students are enrolled in PhD or MS degree programs in the

graduate fields of veterinary medicine, physiology, immunology, toxicology, and others. Internship and residency programs in the Veterinary Medical Teaching Hospital and the departments of clinical sciences and pathology enroll approximately 30 individuals seeking advanced work in clinical specialties. A combined program of study leading to a DVM/PhD degree also is offered.

In 1876,
Cornell was
the first
university
to award a
DVM degree.

Admission to the DVM Program

Recently admitted DVM classes have had GPAs of 3.5, on average.

Prerequisite Courses

These are the college-level course requirements that are prerequisites for admission; they must be taken for both grade and credit (not pass/fail or credit-only):

English composition, minimum of 6 semester credits or 9 quarter credits; one-half of this requirement may be satisfied with an oral communications course.

Biology, a full year with laboratory, minimum of 6 semester credits or 9 quarter credits

Inorganic (general) chemistry, a full year with laboratory, minimum of 6 semester credits or 9 quarter credits

Organic chemistry, a full year with laboratory, minimum of 6 semester credits or 9 quarter credits (Chemistry 251 and 253 at Cornell University satisfy this requirement.)

Biochemistry, complete course in general biochemistry, upper-division level, minimum of 4 semester credits or 6 quarter credits.

Physics, a full year with laboratory, minimum of 6 semester credits or 9 quarter credits

General microbiology, with laboratory, minimum of 3 semester credits or 4.5 quarter credits

The college welcomes applications from academically talented and highly motivated individuals with diverse backgrounds. Approximately 82 students are admitted each year: 57 to 60 New York residents, four to five from contracting states (New Jersey, New Hampshire, and Puerto Rico), and the remainder from any country or US state.

The college accepts all applications — from New York State residents and nonresidents — through the national Veterinary Medical College Application Service (VMCAS).

Applicants shall check the “Cornell” box on the VMCAS application and request from Cornell a veterinary college supplemental application package. Applicants who do not complete the supplemental application will not be considered for the Cornell DVM program.

Academic Preparation

Prospective applicants should complete a minimum of 90 semester credits, preferably at an undergraduate institution with a reputation for academic excellence that offers the prerequisite courses as part of an accredited baccalaureate program. Those who plan to complete some course work at a two-year college, must be complete at least 30 of the 90 credits at the upper-division level

in a four-year baccalaureate program.

If advanced-placement credit has been received for a basic course, it is expected that a more advanced course in the same subject, which is not listed as another requirement, will be completed with a grade in fulfillment of the requirement.

Selection Criteria

Academic Achievement and Aptitude. Because veterinary medical education requires strong academic abilities, 65 percent of the total admissions evaluation is given for academic achievement and aptitude. Cumulative grade point average (GPA) is weighted 30 percent. Grades are considered reliable indicators of academic motivation and aptitude. A minimum of 3.0 (on a 4.0 scale) is expected. The average GPA for recently admitted classes has been approximately 3.5. Scores on the general tests of the Graduate Record Examination (GRE) are also allocated 30 percent of the total admissions score. The advanced biology test or other advanced tests are not required. The GRE must be taken no later than October of the year of application, whether applicants take the group paper-and-pencil test or the computer-based testing program. Scores from GRE tests taken

more than five years before the application deadline will not be considered. A bonus of up to 5 percent may be awarded by the admissions committee for quality of academic program. Factors considered in giving this bonus are: enrolling in a challenging curriculum, carrying a full course load to completion, and exceeding minimum preveterinary course requirements.

All prerequisite courses must be completed with at least a grade of C. It is possible to have up to 12 credits in progress at the time of application, provided that at least one semester of any two-semester series has been completed. All requirements must be completed by the end of spring term of the year of intended matriculation. The admissions committee reserves the right to review the content of courses submitted in fulfillment of these requirements to ensure an adequate, current knowledge base.

Experience Working with Animals and with the Veterinary Profession.

Understanding the veterinary medical profession and proper animal care are important considerations, accounting for 20 percent of the evaluation. This experience can be gained by working in a veterinary practice or by breeding, rearing, feeding, and

showing various kinds of animals, including companion animals, livestock, laboratory animals, zoo animals, or wildlife. The quality and quantity of this experience are evaluated on the basis of the applicant's description and by letters of evaluation from supervisors.

Other Achievements and Character. The well-rounded candidate demonstrates achievement outside of academic and animal-oriented activities. The committee values community involvement and any significant nonacademic interests and abilities, as well as characteristics such as reliability, honesty, good communication skills, and dedication to service. The evaluations and essay that accompany the application serve as indicators of these factors. These factors account for another 15 percent of the evaluation.

Application Procedures

Application forms and detailed information may be obtained by writing to the DVM Admissions Office, S1-006 Schurman Hall, College of Veterinary Medicine. Application materials will be ready for distribution July through September annually. The complete VMCAS application, application fee, and supporting documents must be submitted with a postmark no later than October 1; supplemental applications are due November 1.

Open House 1998

The 32nd annual all-day Open House at the College of Veterinary Medicine at Cornell is scheduled for Saturday, April 18. All are welcome!

University Requirements. Applicants accepted for admission are required to pay a \$500 matriculation fee by April 15 of the year of enrollment (unless the applicant is otherwise notified). No refunds will be made to applicants who withdraw after the due date of the fee. Entering students must also fulfill the health requirements adopted by the Board of Trustees of Cornell University.

Applications from International Students. International students may compete for non-resident positions. In addition to fulfilling all other requirements, international students must have completed at least one year of undergraduate studies at an accredited college or university in the United States. The Test of English as a Foreign Language (TOEFL) exam is required of students whose native language is not English. The minimum acceptable TOEFL score is 600.

Reapplication. Previous applicants who would like to re-apply should submit a new VMCAS application and Cornell supplemental application, together with application fees, and any new information necessary to update the record.

Early Admission Program

Highly qualified students may apply in the spring of their sophomore year for early admission to the DVM professional program. Their outstanding academic qualifications can guarantee them admission at the completion of their junior year or, if they choose, after graduation with a baccalaureate degree. With their professional education assured, they are free to plan an undergraduate curriculum that broadens their general education or focuses on a specialized interest.

Application and requirements for early admission are the same as for other applicants, except that candidates for early admission must have grades of B or better in all prerequisite courses. Students who have not completed all required courses must complete them by the end of the spring term before matriculation in the professional curriculum. The latest acceptable GRE test date for early admission is March of the year of application. Completed applications for early admission must be sent to the DVM Admissions

Office at the College of Veterinary Medicine with a postmark no later than April 1.

Combined Programs

Double Registration. Through a program of double registration, it is possible for DVM students who completed their preveterinary work in the College of Agriculture and Life Sciences at Cornell University and who were accepted after their third year of undergraduate study to complete a BS degree while working on the DVM degree. Students interested in this program should consult their undergraduate faculty advisers.

DVM/PhD Program. Veterinary students aspiring to academic or research careers may apply for the combined DVM/PhD program. Details of this program are provided in the section of this catalog on Graduate Education.

Tours

One-hour tours of the college for preveterinary students and the general public are offered by the admissions office every Friday, 3:30 to 4:30 pm. Reservations: 607-253-3700, extension 1.

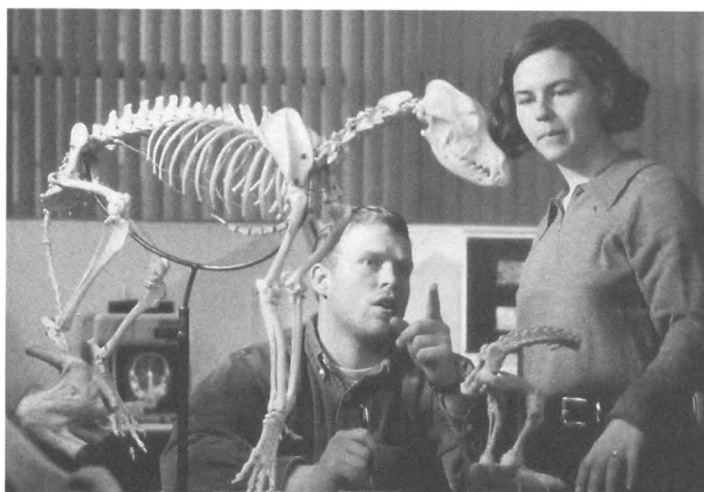
The DVM Curriculum

The veterinary medical curriculum was modified in 1993 to better prepare students for the challenges of the 21st Century. Four classes are now enrolled in the new curriculum, which graduated its first students in 1997. The curriculum consists of seven foundation courses, which comprise approximately 70 percent of the total credits required for graduation. An extensive selection of distribution courses, arranged in sets, comprises the remaining 30 percent.

Foundation Courses

Foundation courses are scheduled throughout all four years and are taken by all students in the same sequence. They are comprehensive interdisciplinary courses designed to provide students with an essential, comparative knowledge of each discipline. They stress the comparative veterinary and biomedical aspect of the discipline and provide a firm general knowledge of the subject areas. They are scheduled using a block system, thereby allowing students to concentrate on a single course at a time without having competing priorities from other courses.

The first four foundation courses — *The Animal Body* (12 credits), *Genetics and Development* (8 credits), *Function and Dysfunction* (16 credits), and *Host, Agent, and Defense* (12



The college's academic program provides the opportunity for students to learn *in context*.

credits) — are scheduled during the first three semesters and use small-group, problem-based learning as the principal educational modality. Tutorials are supplemented by organized lectures, laboratories, and interactive large-group sessions, with afternoons available for independent study. These four courses are scheduled during the first three semesters and range in length from seven to 12 weeks, excluding assessment periods.

Foundation Course V — *Animals, Health, and Disease* (30 credits) — is 24 weeks long and is

scheduled during semesters four and five. This course incorporates a variety of educational formats: lectures, large-group case discussions, organized laboratory, and self-directed study.

Foundation Course VI (37 credits) comprises a series of clinical rotations, based within the college's Veterinary Medical Teaching Hospital and the Equine and Farm Animal Hospital's

ambulatory clinic. This course is scheduled during semesters six, seven, and eight and is interspersed with distribution courses in semesters six and eight.

Foundation Course VII — *Animals, Veterinarians, and Society* (5 credits) — is scheduled concurrently with other foundation courses during the first three years of the curriculum; it emphasizes the practical aspects of the basic biomedical science education.

Distribution Courses

Distribution courses are designed to fill specific educational requirements in each discipline or area. The principles covered in distribution courses are as much core as those in foundation courses, the difference being that these courses use species



An Overview of the DVM Curriculum

Fall Semester

Spring Semester

Year 1

The Animal Body	Genetics and Development	→	Distribution Courses	Function and Dysfunction: Part I
Animals, Veterinarians, and Society (AVS)				AVS

Year 2

Function and Dysfunction: Part II	Host, Agent, and Defense	→	Distribution Courses	Animal Health and Disease: Part I
Animals, Veterinarians, and Society (AVS)				AVS

Year 3

Animal Health and Disease: Part II	→	Distribution Courses
Animals, Veterinarians, and Society		Clinical Rotations

Year 4 (12 months: May to May)

Clinical Rotations	→	Distribution Courses
		Clinical Rotations

or topics of greatest interest to the student to illustrate the principles being learned. In this manner, distribution courses are designed to recognize the distinctive interests and abilities of each student and are built upon the collective and individual strengths of the faculty.

Distribution courses are scheduled throughout all four years of the curriculum, allowing students to increase their level of understanding of the basic sciences as they expand their clinical knowledge base. During years one and two, the distribution course period extends for eight weeks from late January to mid-March. During years three and four, the January-to-March period is supplemented by an additional eight-week period from March to May. During both intervals, upper-class students will be involved in either clinical rotations (Foundation Course VI) or in a block of distribution courses.

Students are required to accumulate 37 credits of non-hospital-based distribution courses for graduation. This represents approximately 7 credits in year one and an average of 10 credits per eight-week period during each of years two, three, and four. Although some courses are restricted to students in years three and four, many others are available in the

last three years or in all four years of the curriculum. This allows students from different classes to take these courses simultaneously and to benefit from peer interaction.

The number of students in each distribution course varies from fewer than six to a maximum of more than 80, depending on the subject and the method of instruction. Some courses are open to graduate students. The range of educational formats used is highly variable — lecture, discussion, independent project, laboratory, small-group tutorials — depending upon the nature and the objectives of the course and the number of students enrolled. Faculty

Sets of Distribution Courses

(numbers shown are minimum and maximum credits that can be applied to graduation)

Specialized Veterinary Anatomy (3, 6)

Animal Management (2, 6)

Veterinarians in Society (0, 2)

Courses associated with Genetics and Development (0, no maximum)

Courses associated with Function and Dysfunction (4, no maximum)

Courses associated with Host, Agent, and Defense (3, no maximum)

Courses associated with Animal Health and Disease (8, no maximum)

Specialty Courses (0, no maximum)

Critical Reasoning (0, no maximum)

Seminars and Rounds (0, 2)

Applied Clinical Education (4, no maximum)

are encouraged to be creative and to experiment in the development of innovative formats.

Distribution courses are grouped in a series of sets according to their subject material. Students are required to take sufficient number of courses to satisfy the minimum number of credit requirements for each set. Some sets also have a maximum number of credits which may be applied toward the 37 credits required for graduation.

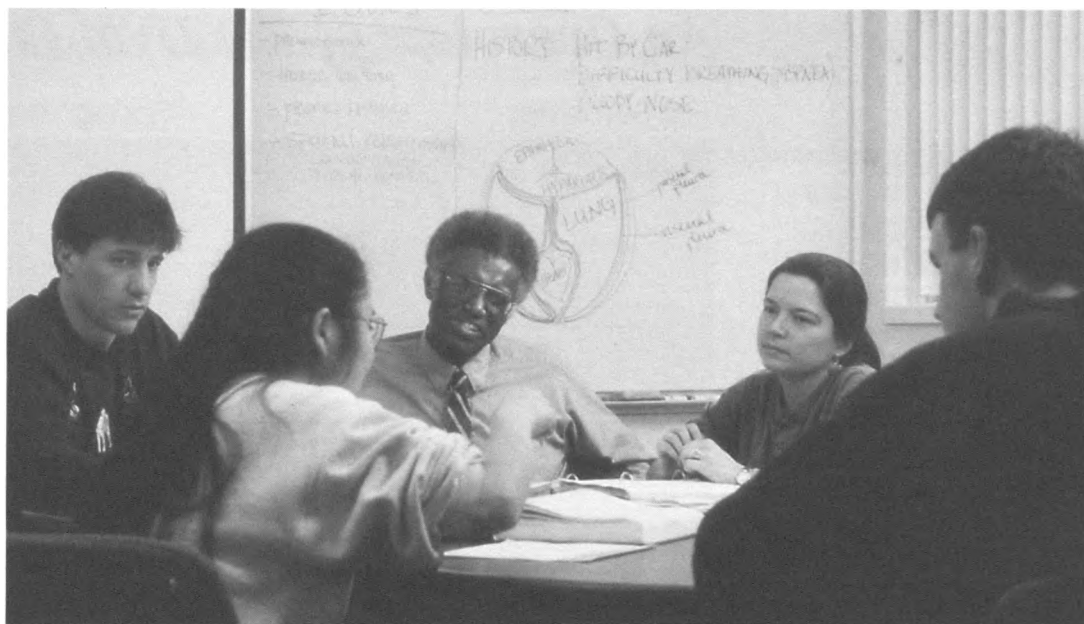
Requirements for Graduation

To receive the Doctor of Veterinary Medicine (DVM) degree, candidates must successfully complete the curricular requirements as listed, pay all fees due, and be recommended for graduation by the faculty of the College of Veterinary Medicine.

The academic year, divided into two terms, begins in late August and ends in late May. At the conclusion of each term, the college faculty reviews the records and conduct of students. Students whose grades are not satisfactory may be denied permission to register in the subsequent term or to graduate or may be assigned varying degrees of academic warning or probation.

Legal Requirements to Practice

Before graduates can practice veterinary medicine in the United



Course by Course

Year 1

<i>Fall Term</i>		<i>Credits</i>
VTMED 510	The Animal Body	12
VTMED 517	Animals, Veterinarians, and Society: Part A	1
VTMED 520	Genetics and Development*	—
VTMED 527	Animals, Veterinarians, and Society: Part B*	—
		<hr/> 13

[* course continues into spring semester]

<i>Spring Term</i>		<i>Credits</i>
VTMED 520	Genetics and Development	8
VTMED 527	Animals, Veterinarians, and Society: Part B	1
VTMED 521	Neuroanatomy and Clinical Neurology	3
(variable)	Distribution Courses	7
VTMED 530	Function and Dysfunction: Part I	9
VTMED 537	Animals, Veterinarians, and Society: Part C ₁	1
		<hr/> 29

Year 2

<i>Fall Term</i>		<i>Credits</i>
VTMED 531	Function and Dysfunction: Part II	7
VTMED 538	Animals, Veterinarians, and Society: Part C ₂	1
VTMED 540	Host, Agent, and Defense	12
VTMED 547	Animals, Veterinarians, and Society: Part D	1
		<hr/> 21

<i>Spring Term</i>		<i>Credits</i>
(variable)	Distribution Courses	10
VTMED 550	Animal Health and Disease: Part I	10
VTMED 557	Animals, Veterinarians, and Society: Part E*	—
		<hr/> 20

[* course continues into year 3, fall semester]

Year 3

<i>Fall Term</i>		<i>Credits</i>
VTMED 551	Animal Health and Disease: Part II	20
VTMED 557	Animals, Veterinarians, and Society: Part E	1
		<hr/> 21

<i>Spring Term</i>		<i>Credits</i>
(variable)	Distribution Courses	10
(variable)	Clinical Rotations	2-10
		<hr/> 12-20

Year 4

<i>Fall Term</i>		<i>Credits</i>
(variable)	Clinical Rotations	20
		<hr/> 20

<i>Spring Term</i>		<i>Credits</i>
(variable)	Clinical Rotations	10
(variable)	Distribution Courses	10
		<hr/> 20

Clinical Rotations

Students must satisfactorily complete a total of 35 credits in Foundation Clinical Rotations, plus an additional 4 credits of Distribution Clinical Rotations (set K Distribution Courses). These courses may be scheduled during the spring term of year 3 and during the fall and spring terms of year 4.

Foundation Clinical Rotations

		Credits
VTMED 561	Community Practice Service: Medicine	2
VTMED 562	Primary-Care Surgery and Anesthesiology	2
VTMED 563	Small-Animal Medicine	4
VTMED 564	Small-Animal Surgery	4
VTMED 565	Ambulatory Medicine	4
VTMED 566	Large-Animal Medicine	3
VTMED 567	Large-Animal Surgery	4
VTMED 568	Anesthesiology	3
VTMED 569	Dermatology	2
VTMED 570	Ophthalmology	2
VTMED 571	Pathology	2
VTMED 572	Radiology	2
VTMED 573	Fourth-Year Clinical Seminar	1
		<hr/> 35

Distribution Clinical Rotations

(set K; minimum 4 credits required)

		Credits
VTMED 700	Theriogenology Service	2-4
VTMED 701	Cardiology Service	2
VTMED 702	Laboratory Animal Medicine	2
VTMED 703	Clinical Wildlife and Exotic Animal Medicine	2
VTMED 704	Quality Milk	2
VTMED 705	Special Opportunities in Clinical Veterinary Medicine	(variable)

States, they must obtain licenses from the states in which they locate their practices. These licenses are generally issued by the department of education or the department of agriculture of the state on the basis of an examination by a veterinary licensing board. Some states issue licenses without examination, based upon reciprocity, when the applicant has been licensed in other states.

The licensing agency in New York is the State Education Department. Application for the examination must be filed at least 60 days before the scheduled date. Requests for information about fees and all inquiries should be addressed to the Executive Secretary of the State Board for Veterinary Medicine, Room 3041, Cultural Education Center, Albany, New York 12230.

Use of Animals in the Curriculum

Applicants for the DVM program should know and understand the following criteria relative to the use of animals in the DVM teaching program, as passed by the faculty in 1988:

1. Live animals will be used for teaching in certain obligatory core (and foundation) courses.
2. Some animals will require humane euthanasia after they have been used for teaching.

3. The college conforms to the rules for the care of such animals as outlined in *Guiding Principles in the Care and Use of Animals* (as approved by the Council of the American Physiological Society), the *Guide for the Care and Use of Laboratory Animals* (DHEW publication 86-23, revised 1996), the Animal Welfare Act, and the New York State Public Health Law.

4. Each course in which animals are used receives a formal review annually by the college Committee on the Use of Live Animals in Teaching.

5. Any concerns regarding the use of live animals in teaching should be addressed first to the faculty member responsible for that course. Alternatively, students may choose to address their concerns to the chair of the Committee on the Use of Live Animals in Teaching, whose name may be obtained from the college's Office of Student Services or from the dean's office. The chair may initiate discussion between the said committee and the faculty member responsible for a particular course without involving the student if he or she would prefer to remain anonymous.

Applicants must acknowledge having read the above information by signing the application form in the designated place.



Special Programs

For DVM Students

International Projects.

The International Advisory Committee makes funds available on a competitive basis to DVM students interested in becoming involved in veterinary projects in developing countries. All DVM students in good academic standing are eligible to apply. Proposals for international projects must include a description of the project, personal background, interest in work overseas, language ability, a realistic budget, and plans for sharing the experience with the college community. Decisions are made by the International Advisory Committee, and funds are administered by the director of international programs. For more information, contact Dr. S. Gordon Campbell, department of microbiology and immunology.

Academic Program Development.

Employment opportunities are available on a competitive basis to students interested in assisting faculty in the development of course materials for the DVM curriculum. Specific projects include problem-based case tutorials and computer-assisted learning modules. Contact Dr. David Robertshaw, acting associate dean for academic programs.

Leadership Program for Veterinary Students.

For the past eight years, the College of Veterinary

Medicine at Cornell has hosted a leadership program for veterinary students. The program targets gifted students from veterinary colleges worldwide who aspire to leadership positions in academic institutions, government, or industry. Approximately 20 fellowships are offered each year. Successful candidates typically stand near the top of their veterinary class; many have research experience; all have distinguished themselves in a variety of professional and personal pursuits.

Fellowships enable students to spend 10 weeks at Cornell during June, July, and August. Student fellows engage in faculty-guided research and a variety of professional enrichment activities. Program features include a stipend, in-residence housing, research experience, career counseling, and group discussions of leadership, ethics, graduate education, and careers in industry. Visits to the research facilities of the National Institutes of Health and the US Department of Agriculture are additional features of the program.

Application forms for admission to the 1998 program may be obtained from: Linda A. Griswold, Graduate Education Coordinator, S3-016 Schurman Hall, College of Veterinary Medicine, Cornell University, Ithaca, New York 14853-6401 USA

AQUAVET. AQUAVET I, a basic four-week intensive

summer course introducing students to aquatic veterinary medicine, is cosponsored by the School of Veterinary Medicine at the University of Pennsylvania and the College of Veterinary Medicine at Cornell. AQUAVET II extends the basic course and permits more detailed study of specific areas of aquatic animal medicine. The program is conducted at the Marine Biological Laboratory, Woods Hole, Massachusetts. For more information, contact AQUAVET Associate Director, Dr. Paul Bowser, department of microbiology and immunology.

For High School Students

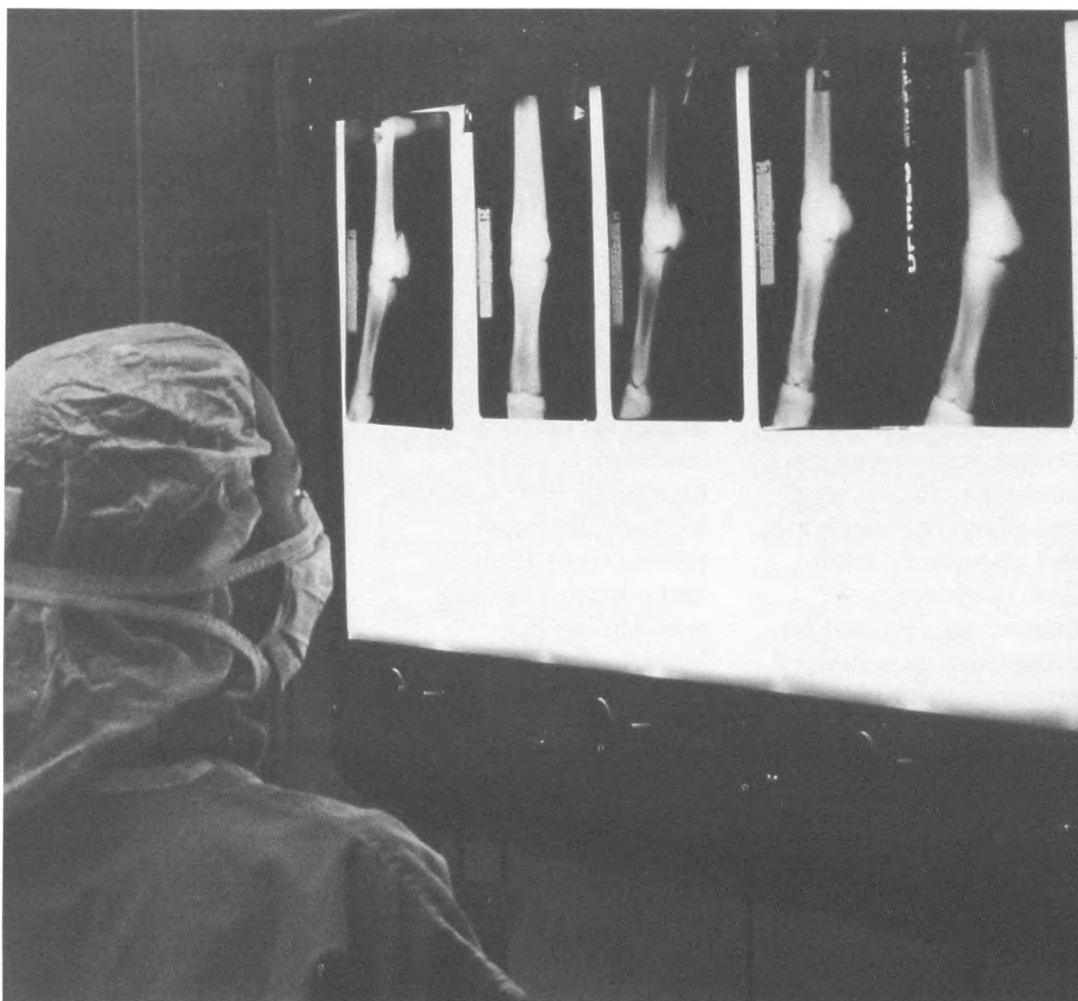
Explorations in Veterinary Medicine.

Cornell University Summer College offers a six-week program for high school juniors or seniors interested in gaining realistic insights into modern veterinary medicine. Through lectures, laboratories, visits, and demonstrations, students become acquainted with the wide range of disciplines within the profession. Participants have the opportunity to meet current veterinary students and faculty involved in a variety of research and clinical programs. In addition, they take a freshman writing course and choose one or more courses from those

offered by the summer college. Students successfully completing the program receive college credit and a certificate from Cornell University Summer College. Call 607-255-6203 or write to Cornell University Summer College, B-20 Day Hall, Ithaca, New York 14853-2801.

Research Apprentice Program for Minority High School Students.

The purpose of this six-week program is to stimulate students to pursue careers in biomedical research. Students are assigned to investigators who are committed to developing in high school students both an understanding of the research in which they participate and the technical skills involved. Students are also assigned to other colleges and units at Cornell, including the College of Agriculture and Life Sciences, College of Human Ecology, and Boyce Thompson Institute. Students who are US citizens or permanent residents and who identify themselves as African American, Hispanic, Native American, Alaskan Native, or Pacific Islander are eligible to apply. Application forms and further information may be requested from the Office of Student Services, S1-006 Schurman Hall, College of Veterinary Medicine, Cornell University, Ithaca, New York 14853-6401.



Internships and Residencies

Internships

As funding allows, the Veterinary Medical Teaching Hospital offers internship programs in ambulatory medicine (ambulatory clinic of the Equine and Farm Animal Hospitals), large-animal surgery (Equine and Farm Animal Hospitals), and small-animal medicine and surgery (Companion Animal Hospital).

Internships are nondegree programs that provide training for practice, clinical teaching, and specialty board eligibility. Generally a one-year rotating internship in medicine and surgery is a prerequisite for residency programs and for board

certification. Internships provide postgraduate education and training leading to a higher level of clinical proficiency.

Interns in small-animal medicine and surgery are assigned on a rotating basis in the Companion Animal Hospital to the internal medicine service, soft-tissue surgery service, orthopedic surgery service, community practice service, and anesthesiology service. Each service consists of one faculty member, at least one resident, at least one intern, and several third- and/or fourth-year veterinary students.

Interns in ambulatory

medicine are assigned to one of four geographic service areas of the ambulatory clinic; each area is the responsibility of an individual faculty member. Schedules are arranged so that the intern has the opportunity to work with most of the faculty.

Interns in large-animal surgery spend most of their time assigned to either the soft-tissue surgery service or orthopedic surgery service of the Equine and Farm Animal Hospitals. Interns also spend approximately one month each year on assignment in the large-animal medicine service.

Interns in all programs share weekend duty and the responsibility for emergency service on a rotating basis, with residents and senior faculty available for consultation. Residents assigned to each service are responsible for direct supervision of interns and, along with faculty members, evaluate the performance of interns at the end of each rotation.

Interns are expected to attend and participate in hospital rounds and seminars. With permission, interns may attend a limited number of elective courses. Interns are generally required to prepare a clinical paper suitable for publication under the supervision of a faculty member of the intern's choice.

Residencies

The Veterinary Medical Teaching Hospital has clinical residency programs in anesthesiology, behavior, dermatology, large-animal medicine, large-animal surgery, ophthalmology, small-animal medicine, small-animal surgery, theriogenology, and ambulatory medicine.

Residency programs provide the resident with a high level of clinical proficiency in a specific clinical discipline. Each program allows the resident to meet the postgraduate education requirements of the specialty board related to that discipline. Residents also gain experience in professional veterinary medical education and in teaching. Residency

programs provide training that leads to a high level of specialized veterinary service to the public.

Residency programs combine both clinical and academic activities. During the course of each program, approximately 70 percent of time is devoted to clinical training and service, while approximately 30 percent is spent in academic pursuits, including research and didactic teaching opportunities. During clinical training periods each resident is supervised by the chief of the service to which the resident is assigned. Academic training is supervised by the section coordinator and designated faculty of the section representing the academic discipline. Each residency program consists of advanced clinical as well as academic training in a specific discipline. Progression through the program leads to increased responsibility for clinical case management as well as the opportunity to become involved in clinical research.

Descriptions of specific residency programs are available from the director of the Veterinary Medical Teaching Hospital.

Each clinical service consists of one faculty member, resident(s), intern(s), and several fourth-year veterinary students. The resident is responsible for the direct supervision of the interns on the service and participates in the clinical teaching of third- and fourth-year students.

Residents have the opportunity to work with all faculty involved in the respective clinical discipline. Residents also participate in after-hours emergency duty on a rotating basis.

A minimum of two calendar years is required for successful completion of residency programs in anesthesiology, behavior, dermatology, large-animal internal medicine, small-animal internal medicine, and ambulatory medicine. Three years of training are required for completion of residency programs in small-animal surgery, large-animal surgery, ophthalmology, and theriogenology.

Opportunities for obtaining an advanced degree (master of science) are available with the residencies in large-animal surgery and theriogenology. In appropriate circumstances, individuals are encouraged to pursue advanced academic training leading to the doctoral degree after completion of a residency.

Residencies in Veterinary Pathology

The college's department of pathology supports separate residency training programs in anatomic and clinical pathology. These programs are designed to address a national need for veterinary diagnostic pathologists by providing an environment in which the trainee can acquire disciplinary skills and expertise in modern diagnostic and toxicologic pathology.

The training consists of rotating exposure to the extensive case material available through the necropsy, surgical pathology, and clinical pathology laboratories of the Veterinary Medical Teaching Hospital as well as the New York State Diagnostic Laboratory. Learning via responsibility for diagnostic casework is supplemented by slide seminars, lectures, diagnostic journal clubs, tutorials, and rotations through specialty service laboratories in the department of pathology and the Diagnostic Laboratory. Summer courses, offered in collaboration with faculty from other universities, include courses in immunohistochemistry, the use of molecular techniques in diagnostic pathology, laboratory animal pathology, and toxicologic pathology. A special course includes Organ System Workshops, held bi-annually with faculty and students from the University of Guelph in Ontario.

The duration of training in either the anatomical or clinical track of the residency program is determined by the entry-level skill of the resident but generally lasts two to three years. Specialty board certification by the American College of Veterinary Pathologists is a goal of both residency training programs.

Resident Program in Anatomic Pathology. Trainees will acquire considerable skill in the

recognition and description of organ and tissue lesions, the formulation of morphologic diagnoses, the correlation of antemortem functional changes with post-mortem structural alterations, and the conceptual approach to understanding the pathologic expression of a wide variety of disease processes affecting the common animal species.

Resident Program in Clinical Pathology.

Residents will acquire skills and knowledge in the areas of hematology, clinical biochemistry, clinical immunology, and diagnostic cytology. A period of participation in the surgical pathology service is provided for each resident. Residents develop their abilities to interpret laboratory results and morphologic patterns and to relate observations to pathologic and physiological processes. Residents also acquire knowledge of laboratory procedures and management through involvement in the laboratory operation.

San Diego Zoo Residency Program

Veterinarians who have completed a minimum of one year of pathology residency at Cornell University are eligible to apply for a special one-year period of residency training in the pathology of exotic animal species at the San Diego Zoo in San Diego, California. Residents may return to complete their training at Cornell University.

Graduate Education

Graduate education at the College of Veterinary Medicine is administered by the Graduate School. Students who hold a baccalaureate or equivalent degree may apply for admission to the Graduate School with a view to pursuing graduate studies leading to the MS or PhD degree.

Graduate education at Cornell is organized by field of study as opposed to discipline or department. The graduate fields of veterinary medicine, physiology, immunology, and pharmacology are the most highly represented in the College of Veterinary Medicine. On occasion, however, students find it expedient to enroll in other graduate fields such as animal science, biochemistry, environmental toxicology, microbiology, neurobiology and behavior, nutrition, or zoology. Each graduate field contains several areas of concentration. A description of each field, including its individual requirements and areas of concentration, is contained in Cornell's current Graduate School catalog and in *Peterson's Guide to Graduate Programs in the Biological, Agricultural, and Health Sciences*.

Combining the Professional (DVM) and Graduate (PhD) Degrees. A combined DVM/PhD program is offered by Cornell's College of Veterinary Medicine and the Cornell Graduate

School. The program targets highly qualified students who aspire to an academic career. Students pursuing the combined degree register in the Graduate School during summer vacation periods to obtain residence credits toward the PhD degree. With proper planning, it is possible to complete the DVM/PhD in six calendar years, although students typically take longer.

Before a student can be considered a combined-degree candidate, he or she must be accepted into the professional degree program. The first step is application to the Office of DVM Admissions, College of Veterinary Medicine, Cornell University. When the student has enrolled in veterinary college, application can be made to Cornell Graduate School.

Combined-degree candidates major in a concentration within the field of their choice. The student's major professor must be a member of the graduate faculty of the student's field as well as a member of the faculty of the College of Veterinary Medicine.

Veterinary students with superior academic records and demonstrated research interests are encouraged to apply for admission to the combined program. Qualified applicants will be admitted only if the funding and research resources are available. Students are encouraged

to express their interest in the combined-degree program at least six months before they register in the Graduate School. A student cannot be registered in both the College of Veterinary Medicine and Graduate School at the same time; however, students may register in the college during the fall and spring terms and then register in the Graduate School during the summer semester. By doing so, they can earn a half residence unit each summer semester up to a maximum of two units. Once the veterinary degree is awarded, the student may petition the Graduate School to transfer two additional residence units for time spent in the DVM program. At least two residence units must be earned by full-time graduate study.

Special Programs in Graduate Education.

Two programs have been organized in the College of Veterinary Medicine: the Graduate Program in Cellular and Molecular Medicine, and the Graduate Program for Veterinary Scientist/Scholars. The new programs target exceptionally well-qualified students who aspire to academic careers. They offer highly structured training experiences under the supervision of faculty members who are nationally competitive research scientists and experienced mentors. The programs are not

linked to a single field or group of fields, and participation in them does not relieve students of their field obligations. Applicants for admission to special programs must be accepted by Cornell Graduate School and must remain in good standing in their graduate field.

Admission

Applicants are encouraged to communicate with one or more faculty members of the graduate field in which they are interested. These individuals may be identified by referring to the Graduate School catalog or communicating with the director of graduate studies of the selected field. Applicants from countries outside the United States must submit a Test of English as a Foreign Language score of 550 or greater if their native language is not English. This requirement applies to all fields.

Applications for Graduate School may be submitted any time; however, students who contemplate matriculation in the fall should submit their applications by March 1, and applications for spring matriculation should be submitted by October 1. Applications should be directed to the Graduate School, Caldwell Hall, Cornell University, Ithaca, New York 14853-2602 USA

Financial Support

Most graduate students receive financial support

from fellowships, or graduate research or teaching assistantships. Students are seldom admitted to a graduate field without assurance that funding is available for the duration of their graduate studies.

Research and teaching assistantships are available from several sources: training grants, individual research grants and contracts, or by positions assigned to departments or operating units of the college.

Approximately 20 assistantships are reserved for applicants with the DVM degree. These are awarded annually following a college-wide competition and are funded at a level comparable to that of other schools of veterinary medicine. Fellowship support for up to three years is provided to students seeking the PhD degree. Successful applicants who are newly enrolled in the Graduate School are provided an additional six months of support with the specific purpose of enabling students to rotate through three or more laboratories. The rotation enables students to experience a variety of training opportunities before they designate their special committee chair. During DVM studies, successful candidates for admission to the combined program are assured of financial support at current work-study rates when they conduct relevant research during intersessions and summer breaks. Course work will not be subsidized during these

periods, however. Once students have been awarded the DVM degree and are enrolled as full-time students in Graduate School, they will receive tuition (currently worth \$11,500 a year) and a minimum salary of \$21,525 a year with yearly increments. Decisions on the awards are made in early spring of the year before fall matriculation. The deadline for submission of college DVM graduate fellowship applications is December 12, 1997.

Assistantship recipients may be eligible to enroll in the college's Graduate Program for Veterinary Scientists/Scholars or the Graduate Program in Cellular and Molecular Medicine. The two programs target individuals who aspire to careers as nationally competitive research scientists. Successful applicants become eligible for stipend supplements, training-related benefits, or both through an annual competition. Program guidelines can be obtained from the college's graduate education office.

Two graduate fellowships are reserved for individuals who belong to underrepresented ethnic minorities — one for a DVM graduate and another for a baccalaureate graduate.

Graduate Record Examinations

The graduate fields at Cornell have varying requirements regarding the Graduate Record Examination (GRE)

general test. Clarification of the requirements can be obtained from the appropriate field representative. For applicants to the field of veterinary medicine, the requirement for GRE scores may be waived for students from countries outside the United States if evidence is provided of superior academic performance (e.g., high class rank) as an undergraduate. Combined scores on the general test (verbal and quantitative) are expected to be 1200 or higher. Some fields (e.g., physiology) also require that the advanced subject test be completed.

Applicants for graduate training should arrange for their GRE scores to be sent directly to the Graduate School. This can be done at the time of registration by entering the Cornell Graduate School number, 2098, at the appropriate place on the test form.

Additional Information

Additional information on graduate education and Graduate School applications can be obtained by contacting the Linda A. Griswold, Graduate Education Coordinator, Graduate Education Office, College of Veterinary Medicine, Cornell University, Ithaca, New York 14853-6401; telephone: 607-253-3276; fax: 607-253-3756; email: <lag13@cornell.edu>

Graduate Faculty Representatives

Field of Veterinary Medicine

Professor Karel A. Schat
Veterinary Medical Center
C4-125
607-253-4032

Field of Biochemistry

Professor P. Andrew Karplus
223 Biotechnology Building
607-255-5701

Field of Environmental Toxicology

Professor Andrew Yen
Veterinary Research Tower
T3-021B
607-253-3354

Field of Immunology

Professor Judith A. Appleton
James A. Baker Institute
607-256-5648

Field of Microbiology

Professor Stephen C. Winans
Wing Hall W-313
607-255-2413

Field of Neurobiology and Behavior

Professor Thomas Seeley
Seeley Mudd Hall W-301
607-254-4301

Field of Pharmacology

Professor Clare M.S. Fewtrell
Veterinary Medical Center
C3-125
607-253-3870

Field of Physiology

Professor Susan S. Suarez
Schurman Hall S3-117
607-253-3589

Field of Zoology

Professor John W. Hermanson
Schurman Hall S2-064
607-253-3542

Academic Policies and Procedures

Registration and Validation

At registration, the university registrar and colleges certify the eligibility of each student to enroll in courses and to purchase or use a variety of services available at the university, such as CornellCard, Co-op dining, libraries, campus bus passes, and housing. The university registration process also includes issuance of identification cards to new students and the collection of information for the student directory and state and federal reports.

Registration is accomplished when the student, in a timely manner, fulfills financial obligations to the university, meets the college's standards for continued course enrollment, and complies with health requirements set forth by University Health Services.

Registration is complete when both the university and the college have recorded that the student is on campus.

Late university registration begins the first day of classes. Students who have not cleared their financial obligations to the university, course problems with the college, or health requirements with Health Services before the first day of classes are considered late and are charged a penalty fee for late registration. The university registrar establishes the final registration date,

usually the end of the third week of classes. Unregistered persons may not attend classes. The university reserves the right to require unauthorized, unregistered persons who attend classes or in other ways seek to exercise student privileges to leave the university premises.

Graduation Requirements

Each student is responsible for knowing the requirements (foundation and distribution) for completion of the DVM program and for properly enrolling in and completing the appropriate courses each term. Requirements for each year are outlined in this catalog in the section *The DVM Curriculum*.

Course Enrollment

Course enrollment at the College of Veterinary Medicine is accomplished as follows:

Foundation Courses.

The college registrar's staff automatically enrolls each student in required courses.

Distribution Courses.

Before the start of each term, the list of courses to be offered and a *Distribution Course Enrollment Form* are distributed by the office of the college registrar. Each student chooses distribution courses and completes the enrollment form according to its accompanying instructions. Completed enrollment forms are

submitted to the college registrar as soon as possible and may not be turned in later than noon on the date of the end of the open add/drop period, as stated on the form.

Following the add/drop period, each student is sent a course enrollment schedule that includes all foundation and distribution courses in which the student is enrolled. It is the student's responsibility to examine this schedule and immediately report any errors to the office of the college registrar.

Changes to Course Enrollment

(Add/Drop Policy)

Distribution courses may be added or dropped during the first two weeks of the term. Credit will not be awarded for a course in which the student was not officially enrolled, even if the student attended all classes and completed the work. This is a Cornell University policy that may not be waived by the college.

College course enrollment is reported to various university, state, and federal offices at the end of the sixth week, after which no further changes may be made.

Changes to fourth-year rotation schedules, whether they affect required, required elective, or extra clinical rotations, are subject to a special college add/drop calendar provided to rising fourth-year

students in the spring term of their third year, and also to the stipulation by the Veterinary Medical Teaching Hospital that no change may be made less than six weeks before the first rotation affected by the change.

Auditing Courses

The university does not allow veterinary students to audit courses.

Leave of Absence and Withdrawal

(pending faculty review and approval)

A leave of absence may be for academic, medical, or personal reasons. Students considering a leave of absence must consult with and submit a written request to the director of student support services and meet with the director of financial aid before taking any leave. A leave of absence is granted for a specific time, after which the student is expected to resume course work. The written authorization for the leave will specify a date by which the student on leave must notify the college of intent to resume studies. The college may withdraw a student who fails to return at the end of a period of authorized leave or who fails to provide notice of intent to return by the specified date. *A student may return from a leave to rejoin the following class only if there is a space available in that class.*

Academic Leave. A student who, for academic reasons, has been denied permission to advance to the subsequent term is considered to be on academic leave of absence. Students are placed on academic leave by the associate dean for academic programs. A student on academic leave will be permitted to repeat the failed term only *once*.

Personal Leave. In rare instances, a student who, for personal reasons, is unable to advance to the next term can be given a personal leave. Personal leaves are arranged by, with requests submitted in writing to, the director of student support services. The dean of the college has final approval for all personal leaves.

Medical Leave. A student who, for medical or psychological reasons, has decided not to advance to the next term is considered to be on a *voluntary* medical leave. Under certain circumstances, a student may be placed on an *involuntary* medical leave: if a student engages in or is likely to engage in behavior which (a) poses a danger to self or others, (b) causes significant property damage, or (c) significantly disrupts the learning environment of others. Since the purpose of a medical leave is to allow time away from the college to receive medical and/or mental health treatment, medical leaves are usually for six months or more and are arranged case-by-case with the dean's office and/or the

director of student support services and are granted and processed in conjunction with University Health Services. Specific procedures must be followed to return from a medical leave.

Withdrawal. A student may withdraw at his or her discretion. Withdrawals are permanent and must be made in writing to the associate dean for academic programs and/or the director of student support services. Readmission after withdrawal is by regular admissions processes.

Tuition Refunds and Financial Aid Adjustment

Amounts personally paid for tuition may be refunded if the student requests a leave of absence or withdrawal from the director of student services. The date of this request will determine the tuition liability for the term. Students who terminate their registration with the university in this manner during any term will be charged tuition from the university registration day through the date of their request on a *pro rata* basis. Contact the Office of the Bursar, Cornell University, 260 Day Hall, Ithaca, New York 14853 (telephone: 607-255-2336) for details.

The university makes available tuition insurance, which provides refunds in the event of leave of absence or withdrawal for medical or emotional reasons. Applications and com-

plete details of this coverage accompany the August tuition bill.

The application fee for university residence halls is nonrefundable, except when lack of space prevents the offer of a room assignment, in which case a full refund will be made on request.

Students who withdraw from a prepaid dining plan during a term are eligible for a prorated refund based on the number of days the contract was in effect.

Financial Aid Repayment

Students receiving financial aid through the university who withdraw during a term will have their aid reevaluated, possibly necessitating repayment of a portion of aid received. Repayment to aid accounts depends on the type of aid received, government regulations, and the period of time in attendance. A partial term will generally count as one of the eight terms of financial aid eligibility normally allowed a student.

Grading Guidelines

DVM students are evaluated at the end of each foundation and distribution course. The course grade represents the composite of the grades from each component of the evaluation process, as determined by the course leader. The official university grading system uses letter grades with pluses and minuses. Passing grades range from A+ to D-; F is failing.

Quality point equivalents for A+ to F grades are:

A+	= 4.3
A	= 4.0
A-	= 3.7
B+	= 3.3
B	= 3.0
B-	= 2.7
C+	= 2.3
C	= 2.0
C-	= 1.7
D+	= 1.3
D	= 1.0
D-	= 0.7
F	= 0

Distribution courses may be graded using either the letter (A+ to F) or S/U (satisfactory/unsatisfactory) grade. Course faculty have the prerogative not to use the full range of the A to F grading scale depending on the course objectives, course content, and the nature of the assessment methods used. [Between 1993 and 1995, courses in the new curriculum were graded using the whole-letter system without plus or minus designation.]

A grade of incomplete is designated by "INC." The student is responsible for seeing that all incomplete grades are made up within the deadline set by the college faculty and that the grade has been properly recorded with the college registrar. The grade "R" is given at the end of the first term of a year-long course. The student is responsible for re-enrolling in the following term in any course for which a grade of R is received.

The grades of INC and R do not have quality points attached. A grade may be changed only if the instructor made an

error in calculating the original grade.

Reporting of Grades to Students. For each course, students may select to be notified of their grades by the faculty member responsible for the course by using one of two grading options: the letter grading option or the S/U grading option. If the letter grading option is selected, the letter grade will be provided to the student, and examinations will be corrected and returned with errors and omissions noted. If the S/U option is selected, grades will be reported to the student as "Satisfactory" (C or above) or "Unsatisfactory" (D or F). On the examinations, errors and omissions will be indicated, but the letter grade will not be reported to the student. Letter grades, however, will appear on transcripts and official grade reports provided to the university whenever appropriate. For either option, steps will be taken to ensure the confidentiality of individual student work and results.

Academic Standards

Foundation Courses.

A student who achieves a grade of F in two foundation courses or a grade of D in three foundation courses will not be allowed to reregister in the College of Veterinary Medicine. A student who achieves a grade of F in one foundation course or a grade of D in two foundation courses in any one semester will be denied permission to advance to the subse-

quent term; the student will, however, be permitted to repeat the term in which the above grade(s) was (were) achieved. A student who achieves a grade of D in one foundation course shall be placed on academic warning and will be required to attain a grade point average of 2.0 or above in foundation courses taken the following semester. A student who does not achieve this required grade point average shall be denied permission to advance to the subsequent term; however, the student will be permitted to repeat the semester.

Distribution Courses.

There are no credit requirements for distribution courses. Although receiving a grade of D or F for individual distribution courses will not, by itself, constitute grounds for denial to advance to the subsequent semester, only courses for which a passing grade (D or above) is achieved will count toward the minimum credit requirement for graduation or toward fulfilling minimum requirements for distribution courses from required sets. Furthermore, no more than four distribution courses with D grades will count toward the minimum credit requirements for graduation.

Repeating a Semester

A student who has been denied permission to advance may repeat only once. A student who

repeats a term will be required to take all foundation courses normally offered during that term, unless exempted by the faculty responsible for teaching the course.

These academic standards do not compromise the prerogative of the college faculty, which may, under unusual circumstances, make exception to these standards.

Transcripts

Transcripts may be obtained only through the Office of the University Registrar, Cornell University, 222 Day Hall, Ithaca, New York 14853. An official transcript is one that bears the official seal of the university and the signature of the university registrar, sent in a sealed envelope directly from the office of the university registrar to another institution or agency as directed by the student. A fee is charged for each official transcript. A student may also request that an unofficial transcript be sent to a particular office on campus. There is no fee for this service. Transcript request forms may be picked up in the college's office of student services.

Student Records

Under the Family Educational Rights and Privacy Act of 1974 (FERPA), students must be advised of their rights concerning their education records. Education records include records directly related to a student and maintained

by an educational institution or party acting on its behalf. The law gives students the right to inspect and review their education records; challenge contents of education records; request a hearing if the challenge is unsatisfactory; include an explanatory statement in the education records if the outcome of the hearing is unsatisfactory; prevent disclosure of personally identifiable information; secure a copy of the institutional policy, which includes the location of all education records; and file complaints with the Department of Education concerning institutional failure to comply with the act.

Conduct of Students

The standards of conduct expected of a Cornell University veterinary student are defined by various university regulations and by the Student Honor Code of the College of Veterinary Medicine.

The code was established in recognition of the importance of ethics, honor, and integrity in an individual's training for the profession. It places responsibility for ethical and professional conduct on the students and is implemented by the Student Administrative Board, which is granted initial jurisdiction by the faculty. It is the responsibility of each student to become familiar with the contents of the code and to abide by it throughout his or her involvement with the college.

Financial Planning

Tuition and Fees

Tuition and fees for doctor of veterinary medicine degree candidates are \$14,000 for New York State residents and \$18,800 for nonresidents for the 1997-98 academic year.

Most students in the college do not live in university housing. The cost of room and board in Ithaca for 1997-98 is estimated at \$6,680.

Required books, instruments, and supplies cost approximately \$890 a year.

An additional allowance of \$3,910 should cover student health insurance (estimated at about \$700), clothing, laundry, local transportation (including approximately \$250 for parking permit), telephone, and incidentals.

These estimates are based on standard budget figures provided by the university's office of financial aid and student employment for the purpose of allocating funds and budgeting for financial aid. Individual expenditures may exceed these figures, depending on personal preferences. The university may change the amount, time, and manner of payment of tuition, fees, or other charges at any time without notice.

Students who wish to pay tuition in monthly installments should contact the university's office of the bursar. Information about this plan is mailed to contin-

uing students in April of each year and to incoming students in May.

Courses of Study provides further information about university policies, student services, fee schedules, and payment procedures.

Financial Planning

Information and guidance regarding financial aid for veterinary students are available through the college Office of Financial Aid. Details of the methods, procedures, calendar, resources, and policies are provided in the college's publications *Guide to Applying for Student Financial Aid at the College of Veterinary Medicine at Cornell* and *Financial Aid Handbook: A Guide to Student Financial Aid at the College of Veterinary Medicine at Cornell University*, which are updated and distributed to students annually.

Approximately 85 percent of financial aid available for the 1997-98 academic year will be through loans and other forms of self-help. College grant and scholarship monies permit modest awards of gift aid to about 25 percent of each class. Such awards are usually based on student/family need. Some scholarships, such as the SUNY Underrepresented Graduate Minority Fellowship, stipulate additional eligibility criteria. In recent years, eligible minority students have received awards ranging from

\$5,000 to \$15,000 per year, depending on documented need. The average award in 1996-97 was \$15,000. The college's policy of support is based on the assumption that parents and spouses are willing to help finance education of family members to the extent possible.

Scholarships

Scholarships are financial aid funds for DVM students, established primarily by gifts from college alumni and friends. Awards are need based and are made by the college's office of financial aid as part of college aid packages. No special application is necessary; all students who apply for financial aid are considered for available scholarship funds. Securing additional support for scholarships is one of the college's top fundraising priorities.

Following is a list of scholarship funds established as of July 1, 1997:

Stanley & Dorothy Aldrich Scholarship
All-Celia Scholarship
Stephen Arnold Memorial Scholarship
Robert I. Ashman Scholarship
Auxiliary Long Island Veterinary Medical Association Scholarship
Auxiliary to the New York State Veterinary Medical Society Scholarship
Clark J. and Martha B. Baker Scholarship
Jack Edward Baker Scholarship
Mr. and Mrs. H. R. Baukhage Book Scholarship
Ralph Bell and Patricia Roe Bell Scholarship in Veterinary Medicine
Barbara R. Benz Scholarship
Bloch Family Scholarship
Mary Jane Brandt Scholarship
Joseph Brender Student Aid Fund
James D. Brenneman '77 Memorial Scholarship

Dorsey W. and Beatrice C. Bruner Scholarship
Charlie and Chico Memorial Scholarship
Dorothy R. Clay Scholarship
The Cornell Veterinarian Endowed Scholarship
Ben B. & Elizabeth J. Cox Scholarship
William A. and Walter R. Dennis Scholarship
Sadie and Pearl DeRidder Scholarship
Duncan Memorial Scholarship
Henry Winfield Dustan Memorial Scholarship
Dr. John W. & Vivian M. Earl Scholarship
Priscilla Maxwell Endicott Scholarship
Matthew Eskeli Scholarship
Mary Essaian Memorial Scholarship
Myron G. Fincher Memorial Scholarship
Francis H. Fox Scholarship
Tracy Garman Memorial Scholarship
Irene H. & John L. Given Foundation Scholarship
Grambow Family Scholarship
Sheila D. Grummick Scholarship
Arthur G. Hall Scholarship
Richard M. Hartenstein Memorial Scholarship
Billy Haughton Memorial Scholarship
Hobbes Scholarship
Hudson Valley Veterinary Medical Society Scholarship
Jaqua Foundation Scholarship
David Kennedy Johnston Endowment
George Kerr Scholarship
Valentine Mott Knapp Scholarship
Mary Buczkowski Kopec and Francis Buczkowski Endowed Scholarship
Dita and Francis J. Koppstein Scholarship
Madelyn C. Kreisler Scholarship
Chester and Carol Lange Memorial Scholarship
Joel Rosenman Leventhal Scholarship
Germaine B. Little Student Scholarship
Lloyd's Underwriters, Lloyd's Brokers, & Lloyd's Kentucky Agents Bursar Award
Miles C. Markham Scholarship
Massapequa Hospital for Animals Scholarship
Ronald F. Mayhew '63 Memorial Scholarship
Dr. Lykerguss W. and Alma Fay Messer Scholarship
Sewell Metzger Memorial Scholarship
Lloyd E. Moore, Sr. & Lloyd E. Moore, Jr. Scholarship
David Morrow Scholarship
Joseph Mosher Incentive Award
Mr. & Mrs. James Murray Kay III Scholarship

Honors and Awards

Each May, during the week before graduation, an Honor Day ceremony is held at the college.

Prizes and awards distributed annually at the ceremony have been established by alumni, friends, corporations, foundations, and organizations interested in veterinary education and animal health. Most awards are for fourth-year DVM students and recognize scholarly achievement in a particular discipline or outstanding aptitude for working with a particular species. Prizes and awards presently available include:

American Association of Feline Practitioners Award

A recognition plaque and two years of free membership in the American Association of Feline Practitioners is awarded to a fourth-year student for special interest and accomplishment in feline medicine and surgery. The recipient is selected by the faculty in the Companion Animal Hospital.

American College of Veterinary Radiology Prize

A certificate and one-year subscription to the journal *Veterinary Radiology & Ultrasound* is awarded to the fourth-year student excelling in clinical radiology.

American College of Veterinary Surgeons Award

This award is given to the fourth-year student who demonstrates outstanding motivation and interest in the art and science of veterinary surgery.

Prize of the Auxiliary of the American Veterinary Medical Association

This prize, restricted to one student, is presented to the member of the fourth-year class who is deemed to

have best advanced the standing of the College of Veterinary Medicine on the campus by special contributions of an extracurricular nature.

James Gordon Bennett Prize

In 1916, Mr. James Gordon Bennett, New York City, endowed this prize for the student who shows the greatest humaneness in handling animals, with special reference to the use of anesthesia. Mr. Bennett was the editor of the *New York Herald Tribune* (forerunner of the *Herald Tribune*) a century ago. A man of diverse abilities and interests, he dispatched Henry M. Stanley in 1870 to find Dr. David Livingstone in Africa. Nominations are made by the faculty of the section of anesthesiology in the department of clinical sciences.

Anne Besse Prize

Miss A. B. Jennings of New York City endowed this prize in 1925 for the best work in large-animal medicine. Nominations are made by the medicine section faculty of the department of clinical sciences.

Frank Bloom Pathology Award

This prize was established in 1978 with an endowment by Dr. Frank Bloom. A 1930 Cornell graduate, Dr. Bloom was a charter diplomate of the American College of Veterinary Pathologists as well as a diplomate of the American College of Laboratory Animal Medicine. He practiced in Flushing, New York, taught at Downstate Medical, and published extensively. The nomination for a fourth-year student excelling in pathology is made by the department of pathology.

Gary Bolton Memorial Cardiology Award

Funds for the endowment of this award were donated by friends and colleagues of Dr. Gary R. Bolton in memory of his outstanding contributions to the field of small-animal cardiology. Dr. Bolton was a member of the college faculty and taught cardiology for a decade. He was also known and respected as a compassionate veterinarian who exhibited empathy for his patients

Scholarships Established by Veterinary Alumni/ae Classes

Class of 1929 Scholarship
Class of 1939 Scholarship
Class of 1941 Scholarship
Class of 1942 Scholarship
Class of 1943 Scholarship
Class of 1944 Scholarship
Class of 1945 Scholarship
Class of 1946 Scholarship
Class of 1949 Scholarship
Class of 1950 Scholarship
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Class of 1986 Scholarship
Class of 1988 Scholarship
Class of 1991 Scholarship

New York State Veterinary Medical Society Scholarship
James T. Noonan Scholarship
North Shore Animal League Scholarship-Loan Fund
Pfizer Veterinary Scholarship Award
Plainfield Kennel Club Scholarship
Mrs. Cheever Porter Foundation Scholarship
Wilburn H. and Florence B. Potter Scholarship
Ryman & Katherine Powell Veterinary Student Aid Fund
Putnam Kennel Club Scholarship
Merlin H. Reed Memorial Scholarship
Frank and Rosa Rhodes Veterinary Scholarship
Frank and Rosa Rhodes Presidential Scholarship in Veterinary Medicine
Tessa Ross Scholarship
The Salisbury Scholarship Endowment Fund
The Dorothy Schiff Scholarship
Le Schin-Weiler Empire Cat Club Scholarship
Isidor Sprecker Wildlife Medicine Award
Meg St. John Scholarship
P. Daniel Stevens Memorial Scholarship
Susque-Nango Kennel Club Scholarship
Richard M. Swezey Memorial Scholarship
Thomas E. Tanneberger Memorial Scholarship
Jim Dale Thomas Memorial Scholarship
Tinsel Scholarship
Union County Kennel Club Scholarship
Thurman C. Vaughn Jr. Memorial Scholarship
Dominick Frank Vietro Scholarship
Donald B. Wade Memorial Scholarship
Hilda G. and Walter D. Way Scholarship
Colonel and Mrs. Louis G. Weisman Scholarship
Westminster Kennel Foundation Scholarship
Hulda Anna White Scholarship
Deborah M. Wohlfort Scholarship
Leo A. and Virginia B. Wuori Scholarship
Wyoming Valley Kennel Club Scholarship
Yonkers Raceway Foundation Scholarship
Dr. Irving Zimmerman '35 Memorial Scholarship in Veterinary Pathology
Pearl Zimmerman Emergency Loan Fund

and their owners. A fourth-year student who has demonstrated understanding and expertise in cardiology and empathy for patients compatible with the philosophy of Dr. Bolton has been nominated by the faculty of the Companion Animal Hospital.

Charles Gross Bondy Prize

Mr. Richard Bondy, New York City, endowed this prize in 1929 as a memorial to his son; it is given for the best work in the courses in practical medicine and surgery of small animals. Nominations are made by the faculty of the medicine and surgery sections of the department of clinical sciences responsible for teaching in the Companion Animal Hospital.

Comparative Anatomy Award

In 1994, on the occasion of his 50th year class reunion, Dr. Howard Evans (DVM '44) and his wife Erica generously endowed this scholarship within the department of anatomy. The purpose of this award is to recognize and encourage student participation in anatomical endeavors that pertain to the gross structure or function of any animal (particularly fish, reptile, or bird).

John F. Cummings Memorial Award

John Cummings, BS '58, DVM '62, MS '63, PhD '66, James Law Professor of Anatomy, had a long, distinguished career at Cornell as teacher, researcher, and mentor to both veterinary and graduate students, before his untimely death in November 1996. A researcher in comparative neuropathology, internationally renowned for his work with animal models of human neurologic diseases, Dr. Cummings was the kind of person that many aspire to be. The College of Veterinary Medicine Classes of 1997, 1998, 1999, and 2000 established a fund to provide this annual award to a member of the third-year class who best exemplifies the qualities espoused by Dr. Cummings: modesty; integrity; respect; responsibility to family, community, and society; enthusiasm; honesty; and a legendary sense of humor. Students in any of the four veterinary classes can nominate a member of the third-year class for this award; the recipient of the

award is then chosen by a faculty committee from among those students nominated.

A. Gordon Danks

Large-Animal Surgery Award

This award was initiated in 1978 by the faculty of the department of clinical sciences to recognize the outstanding contributions of Professor Emeritus A. Gordon Danks, first director of student administration and admissions, and chairman of the former department of large-animal medicine and surgery. It is presented to a fourth-year student demonstrating outstanding knowledge and talent in the diagnosis and treatment of surgical problems of large animals. Basic and applied knowledge, diagnostic abilities, general surgical skills, and patient care exhibited during the clinical rotations are considered in the presentation of this award.

Donald D. Delahanty Memorial Prize

This prize was established as a special memorial to Dr. Donald Delahanty, a member of the former department of large-animal medicine, obstetrics, and surgery from 1952 to 1975. The prize is given to a fourth-year student showing an interest in equine practice and a high level of proficiency in the field. The candidate is nominated by the faculty of the department of clinical sciences concerned with the equine patient.

Hugh Dukes Prize in Experimental Physiology

This prize was established by former students and friends of Dr. H. Hugh Dukes, who was a pioneer in the education of students in physiology and who served the university and college for 28 years as professor and chairman of the department of physiology. With a view to encouraging veterinary graduates to undertake research and teaching in physiology, the prize is awarded upon the judgment of the veterinary physiology teaching faculty to a veterinary student who has done excellent work in physiology laboratory courses and shows potential for teaching and contributing new knowledge to physiology. Nominations may be made by any faculty member in the college.

Ettinger Incentive Award

Dr. Stephen Ettinger, DVM '64, established this award to provide encouragement to all veterinary medical students at Cornell. The award, consisting of his *Textbook of Veterinary Internal Medicine*, is given to a second-year student who has made the greatest improvement in cumulative GPA between the first and second year.

Myron G. Fincher Prize

This award was initiated in 1980 through an endowment from Dr. Neil W. Pieper, DVM '32, given in honor of Professor Emeritus Myron G. Fincher '20. It is in recognition of the many contributions to the college by Dr. Fincher. Always a gentleman, he firmly demanded the best from his students and played a leading role in the instruction of large-animal medicine and obstetrics for 45 years. It is presented to a fourth-year student demonstrating the best work in courses dealing with large-animal obstetrics and reproductive diseases. Both academic and practical performance are considered. Nominations are made by the section of theriogenology in consultation with other clinical faculty.

Gentle Doctor Award

The Gentle Doctor Award was originally made possible by Dr. William Hornbuckle's contribution of prize money from the Norden Distinguished Teacher Award he received in 1979. Dr. and Mrs. Robert Kirk established a permanent endowment fund for the continuation of this award. The recipient of the award is a fourth-year student who, in the opinion of the faculty of the department of clinical sciences, exemplifies enthusiasm, motivation, and dedication to the delivery of excellent veterinary patient care.

Hill's "Buddy" Award

Hill's Pet Nutrition, Inc., established this award to honor a fourth-year student who has demonstrated excellent problem-solving ability, knowledge, and application of principles of nutrition throughout the stages of life, as well as in clinical disease in small-animal medicine and surgery. This recipient is selected by members of the clinical faculty and those involved

in teaching and counseling on clinical nutrition.

IAMS and VECCS Award

IAMS and the Veterinary Emergency and Critical Care Society sponsor this award given to a fourth-year student who is a member of the student chapter of VECCS and has demonstrated excellence, interest, and proficiency in the field of small-animal emergency and critical care medicine. The recipient is chosen by the clinical faculty.

Grant Sherman Hopkins Prize

The endowment for this prize was given by Ms. Ann Ottaway Hopkins in 1955 in memory of her husband who had served the university and college for 45 years as professor of veterinary anatomy. It is awarded upon the recommendation of the faculty in the department of anatomy on the basis of interest, ability, perseverance, and performance in the work in that department.

P. Philip Levine Prize in Avian Medicine

This prize was established from gifts made by friends and colleagues of Dr. P. Philip Levine in memory of his many contributions to the field of avian medicine, both nationally and internationally. Dr. Levine was a long-time member of the Cornell faculty and was the first chairman of the former department of avian diseases. Much of his life was dedicated to training young people and encouraging them to aspire to excellence. In the spirit of encouraging excellence, this prize is awarded to the third-year veterinary student attaining the highest grade in the course on avian medicine.

Merck Manual Awards

Merck and Company, Inc., offers copies of the *Merck Veterinary Manual*, embossed with the names of the recipients, to members of the fourth-year class who will graduate highest in their class.

Jane Miller Prize

Funds for the endowment of this prize were given by Dr. Frank H. Miller, a graduate of McGill University and a trustee of Cornell University for 20 consecutive years. As a memorial to his wife, the prize is awarded to a member of the second-year class who has done the

best work in veterinary physiology. Candidates are nominated by faculty in the department of physiology.

Malcolm E. Miller Award

In 1965, Ms. Mary Wells Miller Ewing established this award in memory of her husband, Dr. Malcolm E. Miller, DVM '34, a former professor of anatomy and the head of that department from 1947 to 1960. The recipient is to be a fourth-year student who, in the judgment of the dean, has demonstrated perseverance, scholastic diligence, and other personal characteristics that will bring credit and distinction to the veterinary profession.

Mary Louise Moore Prize

Dr. Veranus A. Moore established this endowed prize, as a memorial to his wife, for the best work in bacteriology. Dr. Moore served as chairman of the former pathology and bacteriology department and as dean of the college from 1908 to 1930. Nominations are made by faculty in the department of microbiology and immunology.

Neuroanatomy—Clinical Neurology Prize

In memory of Dr. William B. Forsythe, this prize is awarded to the fourth-year student who has demonstrated the most outstanding expertise and interest in neuroanatomy and clinical neurology. Nominations are made by the faculty who have primary responsibility for instruction in neuroanatomy and in clinical neurology.

New York State Veterinary Medical Society Prize

This prize, which consists of an engraved plaque and a cash award, is provided annually by the Society for the best Senior Seminar. Members of the fourth-year class are eligible to compete. Nominations are made by the senior seminar committee, which judges the quality of the seminars.

Leonard Pearson Veterinary Prize

This award, endowed in 1993, is for the fourth-year student who most successfully demonstrates the potential for professional and/or academic leadership in veterinary medicine.

Phi Zeta Award

The Alpha Chapter of Phi Zeta, the honor society of veterinary medicine, acknowledges the second-year student with the best academic record upon completion of the first three semesters of study. The recipient of the award receives Ettinger's *Textbook of Veterinary Internal Medicine, Volumes I and II*.

Pfizer Animal Health Veterinary Award

This award was established by the Pfizer Animal Health Company to foster veterinary medical education by recognizing the outstanding third-year student who, through his or her ability, dedication, and character, attains a high level of academic achievement and productivity.

Colonel Floyd C. Sager Equine Obstetrics and Pediatrics Award

This award, created on the occasion of Dr. Sager's 90th birthday in 1984 by another Cornellian who trained under Dr. Sager, recognizes a Cornell veterinarian whose name is synonymous with excellence in equine obstetrics and pediatrics. Following Dr. Sager's graduation in 1917, he served in the army Remount Service until after World War II. He then became the veterinarian for the world-famous Claiborne Farm in Kentucky where he remained until his death in February 1986. The fourth-year student receiving this award, in the opinion of the faculty of the department of clinical sciences, has displayed outstanding aptitude in equine obstetrics and pediatrics.

E. L. Stubbs Award

This prize, contributed by the Mid-Atlantic States Association of Avian Veterinarians, is to be awarded to the fourth-year student who has demonstrated the most outstanding competence and motivation in various areas of avian medicine. Nominations are made by the faculty who have primary responsibility for instruction in avian diseases and clinical avian medicine, including the adviser of the wildlife and exotic animal clinic.

Anna Olafson Sussex Pathology Award

This award was endowed in 1974 by Dr. and Mrs. Peter Olafson in memory of Dr. Olafson's sister. The award is given to a third-year

student who has done outstanding work in pathology. Recommendations are made by faculty actively engaged in teaching pathology.

Jacob Traum Award

Through an endowment established by friends of Jacob Traum, DVM '05, professor emeritus of bacteriology, University of California, and formerly chief scientist at the federal Plum Island Animal Disease Laboratory, this prize is awarded to the fourth-year student who is judged by the department of microbiology and immunology as having exhibited superior interest and accomplishment in bacteriology, epizootiology, pathology, and virology, including an aptitude for and expressed interest in research on infectious diseases.

Upjohn Clinical Awards

The Upjohn Pharmaceutical Company offers prizes to the two students — the one considered to be the most proficient in the practice of large-animal medicine, and the student considered to be the most proficient in the practice of small-animal medicine. Nominations for these awards are made by the faculty members of respective departments.

Horace K. White Prize

An endowment for this prize was originally given by Mr. Horace K. White (and later his sons of Syracuse, New York) for the student with the highest academic record during his or her veterinary training. This award, originally called the President's Prize, dates back to 1873 and is probably the longest-standing prize at Cornell. The original donor was a brother to Andrew Dickson White, the first president of the university.

Wild Bird Research and Rehabilitation Award

This award, from a university endowment by the same name, is given to a fourth-year veterinary student who has demonstrated concern for the rehabilitation of wild birds or who has been involved in research related to wild-bird treatment and rehabilitation. Nominations are made by the Jay Hyman Professor of Wildlife Medicine based upon recommendations of concerned faculty.

Faculty Awards

Pfizer Animal Health Award for Research Excellence

This award is presented annually to a young investigator whose research achievements are likely to have a significant impact on the understanding of the biology or medical management of animals. Nominees must be permanent faculty or senior research associates of the College of Veterinary Medicine at Cornell and must have completed their formal training not more than eight years before being nominated. Most of the research must have been conducted at Cornell within three years of the time of nomination.

Norden Distinguished Teacher Award

This award goes to a full-time member of the veterinary medical faculty who has demonstrated continued excellence in teaching. Fourth-year students elect the recipient of this prestigious award from candidates nominated by students in all four years of the DVM program.

Outstanding Clinical Resident Award

This honor is awarded to a resident judged to demonstrate exemplary compassion for animal patients and clients, outstanding clinical proficiency in the management of Veterinary Medical Teaching Hospital patients, and noteworthy dedication to the training of veterinary students. The recipient is selected by a vote of the fourth-year class.

Student Services

The college's office of student services addresses the needs of students in the college by providing a variety of services. These include admission-related activities for prospective DVM students; academic and personal counseling; facilitating contact with resource groups elsewhere on campus (e.g., psychological services); maintaining placement information files for externships, opportunity blocks, and jobs following graduation; information regarding DVM licensure; information regarding scholarships and other special opportunities; organizing Honor Day and Commencement activities, as well as other student-related services.

Academic and Personal Counseling

Faculty advisers assist with questions concerning academic progress and career goals within the profession. In addition, the director of student support services and associate dean for academic programs provide assistance in resolving academic problems and personal difficulties that affect student achievement.

Health Services

University Health Services provides medical care for all full-time undergraduate and graduate students enrolled at Cornell University in Ithaca. Gannett Health Center, at 10 Central Avenue, is

open 24 hours a day during the school year and is available for over-night care and urgent outpatient services outside of normal working hours. Normal hours are Monday through Friday from 8:30 am to 5 pm and Saturday from 10 am to 4 pm during the regular academic terms.

The center's medical staff, under supervision of the medical director, consists of attending physicians and health associates from the university staff and consulting physicians and surgeons from the Ithaca area. All medical records are strictly confidential.

To make a medical appointment, call 607-255-5155 or go to the center. For an appointment with Psychological Services, call 607-255-5208 or go to the offices at the center. A doctor is on-call 24 hours a day for urgent problems (607-255-5155) but the center is closed after 5 pm.

For up-to-date information, contact the Gannett Health Center webpage at <http://www.sas.cornell.edu/gannett/gannett.html/>

Emergency Health Service. Students requiring after-hours or urgent care should call the health center at 607-255-5155 to receive instructions on the proper course of action to follow.

Health Insurance. For information about health insurance for students and student spouses, call

607-255-6363 or visit Gannett Health Center, where a representative of the insurance company has an office.

Placement

The placement service, a part of the college's office of student services, located in S1-006 Schurman Hall, offers valuable information to students attending the College of Veterinary Medicine at Cornell. Alumni and other practitioners seeking associates also benefit from this service.

Employment opportunities for permanent positions, summer jobs,

and externships — solicited from all over the country — are stored in a central file and can be selected by type of practice (small, large, or mixed) and desired geographic location.

Services for Persons with Disabilities

Cornell University is committed to assisting those persons with disabilities who have special needs. To obtain a brochure describing services for persons with disabilities, write to the Office of Equal Opportunity, Cornell University, 234 Day Hall, Ithaca, New York 14853-2801.

Student Life

Housing and Dining

Student Housing. All requests for information about and applications for on-campus, off-campus, and student family housing should be directed to the Campus Life Housing Office, 210 Robert Purcell Community Center, Cornell University, Ithaca, New York 14853-6001, by telephone at 607-255-5368 or on the World Wide Web at <http://www.campuslife.cornell.edu/main/housing/>

Dining Services. Information on the various dining plans available may be obtained from Cornell Dining, Cornell University, 233 Day Hall, Ithaca, New

York 14853, by telephone at 607-255-8582 or on the World Wide Web at <http://www.campuslife.cornell.edu/main/dining/>

Activities and Organizations

SCAVMA. The Student Chapter of the American Veterinary Medical Association, SCAVMA is the official organization representing veterinary students at Cornell. The national veterinary medical student organization is SAVMA and is the only recognized voice of veterinary students to universities, to the AVMA and state veterinary organizations, and to the state and federal governments.



SCAVMA sponsors many social and educational activities and is becoming increasingly active in national and legislative roles. It also sponsors many lectures throughout the year.

SCAVMA is managed entirely by students with the assistance of a faculty and administrative adviser. Representatives from each class are elected in the fall, and executive officers are elected in the spring. About 90 percent of all veterinary students at Cornell are members of SCAVMA. Members in good standing are eligible, upon graduation, to belong to AVMA Insurance Trust and to receive a one-year free membership in AVMA.

Other Organizations. Student chapters of the following organizations are affiliated with a national organization of the same name. They usually have a charter and fee structure similar to the same organizations at other schools:

AABP, American Association of Bovine Practitioners

AAEP, American Association of Equine Practitioners

AAFP, American Association of Feline Practitioners

AASRP, American Association of Small Ruminant Practitioners

AAV, Association of Avian Veterinarians

The following organizations reflect special student interests, may or may not be related to a national organization, and may or may not be active depending on student interest:

AAHA, American Animal Hospital Association

AHVMA, American Holistic Veterinary Medical Association

Canine Club

College Yearbook

IAAAM, International Association of Aquatic Animal Medicine

SCAVAR, Student Chapter Association of Veterinarians for Animal Rights

SCVECCS, Student Chapter of Veterinary Emergency and Critical Care Society

Ultrasound, a popular *a capella* singing group

The Veterinary Players, a theater group

VIDA, Veterinarians Interested in Developing Areas

VSOC, Veterinary Students of Color

ZAWS, Zoo and Wildlife Society

Students also are members of the following college committees: Common Environment Committee, Faculty-Student Liaison Committee, Honor Board, and International Advisory Committee.

Honor Societies

Students of the College of Veterinary Medicine are eligible for three honor societies:

Phi Kappa Phi. The society of Phi Kappa Phi was founded in 1897 and soon became a national organization. Its primary objective is to recognize and encourage superior scholarship in all fields of study. Good character is essential for those elected to membership.

Phi Zeta. Founded in 1925 by the veterinary students at Cornell University, Phi Zeta strives for the constant advancement of the veterinary profession, higher educational requirements, and superior scholarship. The object of the society is to recognize and promote scholarship and research pertaining to the welfare and diseases of animals.

Sigma Xi. Any student or research staff member is eligible for membership in Sigma Xi, the Scientific Research Society of North America. It is the responsibility of the admission committee of Sigma Xi to select for membership those individuals whose research aptitude or achievement deserves special recognition.

Fraternities

Omega Tau Sigma and Alpha Psi have houses in Ithaca. These veterinary fraternities are coeducational and encourage all students to join whether or not they live at the houses.

32nd Annual Open House at the College of Veterinary Medicine, Cornell University on Saturday, April 18, 1998

Academic Facilities and Resources

Cornell's College of Veterinary Medicine is known for its progressive academic program and world-class resources.

The central campus of the College of Veterinary Medicine, which occupies about 15 acres, includes the three-story Schurman Hall; a 9-story Veterinary Research Tower, added in 1974; the Diagnostic Laboratory, added in 1978; the Veterinary Education Center, opened in 1993; and the Veterinary Medical Center, opened in 1996.

The college has a total of 1.2 million square feet of space.

Nearby the college's central campus is its James A. Baker Institute for Animal Health, a world-renowned center for canine and equine research. Also nearby is the Equine Annex — including an equine quarantine facility, a stable, and a laboratory for equine embryo biology. A part of the college's wildlife medicine facilities also are housed nearby. The Equine Research Park, on 165 acres, features boarding and other facilities for 150 horses, a half-mile track, stallion barn, and separate brood-mare barn with a laboratory for reproductive studies.

Veterinary Education Center

The college's Veterinary Education Center provides state-of-the-art teaching laboratories,

lecture halls, and library facilities.

Irving W. Wiswall Learning Laboratory. A high-tech dry lab, the facility provides faculty and students a variety of integrated media — interactive computer courseware, glass and film slides, analog and digital video, and audio. The lab accommodates 92 students; pairs of students share dual-headed microscopes and networked computers at each workstation.

Jerry and Darlene Bilinski Learning Laboratory. The 5,000-square-foot facility is a wet lab that accommodates approximately 90 students, with dual-headed microscopes and access to water and sinks, biological safety hoods, centrifuges, and other equipment necessary for microbiological and molecular biological teaching.

Roswell P. Flower—Isidor I. and Sylvia M. Sprecher Library and Learning Resources Center. Second only to the Library of Congress in the size and comprehensiveness of its veterinary collection, the facility holds nearly 90,000 volumes and maintains some 1,000 current journal subscriptions in the biomedical sciences. The library also features an on-line catalog that includes the holdings of all campus libraries, an automated circulation system, and access to the World Wide Web and various other network

resources and databases, including the National Library of medicine.

Modular Resource Center. The College's 3,500-square-foot modular resource center, in Schurman Hall, is a visual library comprising self-contained learning stations, called modules. Interactive learning resources include bone preparations, plastinated or wet specimens, radiographs, models, illustrations, microscope slides, computer-generated images, and other materials. A brief script guides students in their interactions with materials.

Tutorial Rooms.

Fourteen tutorial rooms provide opportunities for students to meet in small-group sessions with faculty tutors. Students also use the tutorial rooms during evening and weekend periods for independent and informal small-group study.

Veterinary Medical Teaching Hospital

Opened in 1996, the Veterinary Medical Center houses a state-of-the-art Veterinary Medical Teaching Hospital on the ground level, and research laboratories and academic offices on its three upper floors. The hospital, which provides clinical training for professional students in the DVM curriculum, comprises a Companion Animal Hospital, and Equine and Farm Animal Hospitals. Principal patient-care areas include medicine,

surgery, ophthalmology, dermatology, cardiology, neurology, theriogenology, dentistry, nutrition, and behavior.

Medical exam rooms are arranged around central suites with state-of-the-art technologies that offer clinical laboratories, intensive care, radiology, and anesthesiology and surgery services. ICU suites are staffed round-the-clock. Radiology suites offer radiography, ultrasound, echocardiography, computerized tomography, and nuclear medicine services. Surgery suites are equipped for general, soft-tissue, ophthalmologic, and orthopedic surgeries.

Resources for Educational Development

The college's office of educational development plays a pivotal role in the development and implementation of the progressive academic program. It provides faculty development activities, offers administrative support for foundation courses, and serves as a central source of course-related materials for students.

The office of educational development staff have helped faculty to develop an extensive and expanding library of case-based exercises and computer courseware and provide medical illustrations for cases, modules, courseware, and scholarly publications. Faculty development



activities continue to be important for sustaining the educational changes that distinguish the curriculum, and the office continues to sponsor numerous workshops for faculty on education, student learning, and the tutorial process.

Course materials are created to foster student autonomy and self-directed learning. Cases are written to generate a particular line of questioning; modules are developed as manipulative models and prompts to thinking more globally about a body region or system. They and the computer applications are intended to be as interactive as possible. Courseware developed within the college involves simulations, animations, prediction tables, audio, and video.

Center for Research Animal Resources

Cornell's Center for Research Animal Resources (CRAR) is responsible

for implementing animal care programs throughout the university to assure compliance with all state and federal laws regarding the use of animals for teaching, research, and testing. CRAR also is responsible for providing Cornell's associate vice president for research and advanced studies, the University Animal Welfare Committee, and the Institutional Animal Care and Use Committee with information on developments in the field of animal welfare legislation and compliance with new regulations.

CRAR offers instructional sessions to faculty, students, research technicians, and animal care technicians; CRAR staff is also available to counsel and advise investigators, technicians, and others.

The center maintains information on the suitability of various animal models for research purposes and available alternatives to the use of living animals.

Research

The College of Veterinary Medicine at Cornell is one of the most successful veterinary colleges in the country in competing for resources that support biomedical, agricultural and companion animal research. Major funding for both research and training is provided by the National Institutes of Health, the National Science Foundation, the State of New York, and the US Department of Agriculture. Foundations, corporations, professional groups, and individual benefactors also provide substantial support.

The college has traditionally excelled in the fields of infectious diseases and the basic mechanisms underlying health and disease that are common to animals and people. Recently, major emphasis has been given to clarifying these mechanisms at cellular and molecular levels. Research in immunology remains central to the college's mission, but breakthrough research on many frontiers of human and animal health — in the fields of reproduction, connective tissue disorders, ophthalmology, toxicology, and genetics — has earned the college international acclaim. The college has identified or developed effective animal models for the study of many conditions affecting humans — Lyme disease, hepatitis B, muscular dystrophy, sudden infant death syndrome,

hemophilia A and B, and von Willebrand's disease.

The diagnostic laboratory services at the college are used by researchers at Cornell as well as other universities and private industry. Research services include test development, automated testing, data handling, dissemination of information, pathogenesis, epidemiology, and preventive health programs.

The college has longstanding cooperative and contract research relationships with the biotechnology, human medicine, and veterinary pharmaceutical industries for veterinary and biomedical research. More information is available from the director of the office of research and development services at 607-253-3739.

Today, more than 90 laboratories at the college conduct studies across a broad spectrum — from recombinant DNA research on viruses, to initiation of parturition, to environmental toxicology.

Species-Oriented Research

Aquatic Animals. The unit of aquatic animal medicine in the college's department of microbiology and immunology conducts studies to provide assistance to aquaculturalists and others experiencing problems with fish health. Isolation units in the Veterinary

Medical Center are designed specifically to house fish for research studies in fish pathology, microbial diseases, immunology, pharmacokinetics, and toxicology.

Birds. Cornell is recognized as one of the top avian research institutions in the world. The unit of avian medicine in the college's department of microbiology and immunology, which conducts diagnostic, disease surveillance and research programs to prevent and control diseases that threaten chickens, turkeys and ducks, also is involved in programs that use the chicken as a model for basic research on cancer, immunosuppression, and respiratory diseases. For example, the research team developed monoclonal antibodies for serotype-specific diagnosis of infectious bronchitis virus. Major emphasis has traditionally been on the fields of virology and immunology, but bacteriology and parasitic diseases are also investigated. Studies have resulted in vaccines for chickens, programs to control and eradicate poultry diseases, and techniques now used for preservation of human chickenpox vaccines.

Cats. The Feline Health Center has received worldwide recognition for its work on feline leukemia, feline infectious peritonitis, respiratory diseases, identification of a form of feline immunodeficiency virus in exotic cats, and the development of the ELISA test for detection

of coronaviral antibodies in feline serum.

Cattle. The Bovine Research Center focuses on programs to improve the health, productivity, and well-being of cattle. The center encourages research in health, metabolism, reproduction, breeding, and management for improved production in dairy and beef cattle.

Dogs. The Baker Institute — with its Cornell Research Laboratory for Diseases of Dogs, its Center for Canine Genetics and Reproduction, and its Laboratory of Immunology — is known for groundbreaking work on canine infectious diseases (distemper, hepatitis, brucellosis, and parvoviral infections), arthritis, immunogenetics, reproduction, and inherited eye diseases. Institute research makes use of recombinant DNA techniques, cell hybridization, embryo manipulation, gene mapping, and contemporary methods of molecular and cell biology in developing means to diagnose, prevent, and treat important animal diseases.

Additional canine research is conducted by the Canine Performance Testing Clinic, part of the college's department of clinical sciences, which studies exercise physiology in sled dogs, including athletic performance and nutrition.

Horses. Equine research at the college — in our 165-acre Equine Research Park and the James A. Baker Institute

for Animal Health, its Cornell Equine Genetics Center, and McConnville Barn — includes reproduction, embryo biology, nutrition, behavior, metabolism, infectious diseases, arthritis, orthopedic problems, and the special problems of the equine athlete. Additionally, the equine performance testing clinic, located in the Veterinary Medical Teaching Hospital, permits college veterinarians to conduct sophisticated research on important diseases affecting the performance of the equine athlete. Through a contract with the New York State Racing and Wagering Board, the diagnostic laboratory's equine drug testing and research program provides drug testing and research for the state's horseracing industry.

Wildlife. Cornell's wildlife health program studies individual species

of native wildlife, gaining knowledge which often proves helpful to other wildlife preservation programs. In working with the state Department of Environmental Conservation and the nonprofit New York River Otter Project, Inc., for example, the wildlife health program provides physical examinations, treatment, and microchip identification for otters selected for a project to restore their population in the waterways of central New York state. In a joint venture with the state Department of Environmental Conservation and The Nature Conservancy, the wildlife health program provides a captive rearing program for hatchling Blanding's turtles, a threatened species in New York, helping them grow to half their adult size in safety before returning them to their natural, wild habitat.

Public Services and Outreach

Central to its mission, Cornell's College of Veterinary Medicine provides a broad range of veterinary medical and public health services to the people of the state of New York.

In the Teaching Hospital

Patient Care. Each year, we treat approximately 13,000 dogs, cats, birds, and other small animals in our Companion Animal

Hospital, plus more than 2,000 horses, cows, sheep, goats, pigs, poultry, and other animals in our Equine and Farm Animal Hospitals. The hospitals serve as referral centers for veterinarians practicing within a radius of approximately 150 miles of the college. A significant portion of the caseload consists of complicated medical or surgical problems referred by veterinarians for evaluation by faculty specialists.

State-of-the-Art Services. The professional excellence of the veterinary medical staff of the hospital assures the best health care for the animal patients. Clinicians in both the Companion Animal Hospital and Equine and Farm Animal Hospitals are supported by the newest technologies and procedures in emergency and intensive care, diagnostics, and advanced techniques in small-animal and large-animal medicine and surgeries. Ancillary specialty service areas include anesthesiology and radiology, the latter providing diagnostic ultrasound, nuclear medicine, and computerized tomography (CT).

Basic Care for Companion Animals. General physical examinations, preventive vaccines, advice on raising puppies and kittens are provided by the hospital's Community Practice Service.

Equine Medicine. The college's Equine and Farm Animal Hospitals provide among the most advanced medical and surgical care for horses in the country. The equine performance testing clinic, with its high-speed treadmill, offers clinical evaluation for respiratory function, lameness and gait analysis, and fitness and performance.

On the Farm. The hospital's Ambulatory Services provides care for approximately 40,000 farm animals each year by traveling to the countryside to serve more than 400 farms in a 30-mile radius of the college.

On the
World Wide Web
at [http://
www.vet.cornell.edu/](http://www.vet.cornell.edu/)

Wildlife and Exotic Medicine. The wildlife and exotic animal clinic in the Companion Animal Hospital is the clinical arm of the college's wildlife health program. It provides medical and surgical care each year for approximately 350 donated wildlife species — nondomestic birds, small mammals, and reptiles — as well as nearly 200 exotic species. Zoo animals, such as large cats and elephants, are periodically presented for evaluation and treatment, and the clinic makes on-site visits to local zoos upon request. The clinic also provides care for native wildlife presented by the public, wildlife rehabilitators, and state and federal agency wildlife biologists.

Tests for Public Health

The college offers diagnostic services and collaborates with other agencies on preventive programs to assure the health and well-being of animals and humans in New York State.

Diagnostic Laboratory Services. The college's diagnostic laboratory is a full-service laboratory that offers testing and consultation services in bacteriology, parasitology, virology, automated serology, toxicology, endocrinology, clinical pathology, and hematology,

as well as field service for testing. The diagnostic lab services patients of the Veterinary Medical Teaching Hospital as well as those of veterinary practitioners in New York State and nationally.

The diagnostic laboratory is the state diagnostic center for animal disease control, and official laboratory for the State of New York. Each year, the laboratory conducts more than 700,000 diagnostic tests for animals of all species, including humans.

Quality Milk Promotion Services. As a New York State mastitis control program, the laboratory offers diagnostic services to the dairy and whole-milk industries of New York to assure the health of dairy cattle and the safety of the milk supply.

Poultry Tests. The diagnostic laboratory operates two poultry laboratories in the state, which offer diagnostic services to commercial producers of chickens, ducks and turkeys.

Fish Tests. The laboratory's fish diagnostic services offers assistance on problems relating to fish health in commercial and laboratory settings.

Equine Drug Testing and Research Program. Through a contract with the New York State Racing and Wagering Board, the diagnostic laboratory provides chemical analysis, drug testing, and research to guarantee the integrity of horseracing statewide.

Other Equine Tests. The diagnostic laboratory

conducts an equine viral arteritis control program for the New York state thoroughbred breeding industry, a surveillance program for Potomac horse fever, and a contagious equine metritis (CEM) quarantine station.

Rabies Control. The diagnostic laboratory coordinates large-scale rabies control programs for wildlife within the New England states and northeastern Canadian provinces, in an attempt to impede the northward progression of the virus into unaffected areas.

Poultry and Egg Health. The avian disease control program, a part of the unit of avian medicine in the College's department of microbiology and immunology, works with poultry producers in the state to minimize the risk of *Salmonella enteritidis* in eggs.

Outreach Programs

The college provides educational outreach to veterinary professionals and the general public through a variety of continuing education programs, on-line and call-in diagnostic support services, publications, and other resources.

WWW. The college website at [http://
www.vet.cornell.edu/](http://www.vet.cornell.edu/) provides general information about Cornell's College of Veterinary Medicine and links to the webpages of specific departments and programs within the college, which offer a broad range of veterinary medical informational resources and services.

Faculty and Administration

University Administration

Hunter R. Rawlings III, *president*
Don M. Randel, *provost*
Antonio Gotto, MD, *dean of the medical college and provost for medical affairs*
Frederick A. Rogers, Jr., *senior vice president and chief financial officer*
Harold D. Craft, Jr., *vice president for facilities and campus services*
Henrik N. Dullea, *vice president for university relations*
Ronald G. Ehrenberg, *vice president for academic programs, planning, and budgeting*
H. David Lambert, *vice president for information technologies*
Susan H. Murphy, *vice president for student and academic services*
Mary George Opperman, *associate vice president for human resources*
Inge T. Reichenbach, *vice president for alumni affairs and development*
Yoke San Reynolds, *associate vice president and university controller*
Norman R. Scott, *vice president for research and advanced studies*
Winnie F. Taylor, *associate vice president for human relations*
James J. Mingle, *university counsel and secretary of the corporation*
Peter C. Stein, *dean of the university faculty*

College Administration

Donald F. Smith, *dean*
Douglas D. McGregor, *associate dean for research and graduate education*
David Robertshaw, *acting associate dean for academic programs*
Larry J. Thompson, *assistant dean, director of biosafety*
Bonita S. Voiland, *assistant dean for resources, marketing, development, and public affairs*
Vacant, *assistant dean for finance and administration*

Roger J. Avery, *chair, Department of Microbiology and Immunology*
Cornelia E. Farnum, *chair, Department of Anatomy*
Bendicht U. Pauli, *chair, Department of Pathology*
Geoffrey W. G. Sharp, *chair, Department of Pharmacology*
Maurice E. White, *chair, Department of Clinical Sciences*
John Wootton, *acting chair, Department of Physiology*

Douglas F. Antczak, *director, James A. Baker Institute for Animal Health*
Francis A. Kallfelz, *director, Veterinary Medical Teaching Hospital*
Donald H. Lein, *director, Diagnostic Laboratory*

Linda L. Carr, *director of budget management*
Gloria R. Crissey, *registrar*
Katherine M. Edmondson, *director of educational development*
Robert O. Gilbert, *director, Cornell Bovine Research Center*
Katherine A. Hought, *director, Animal Behavior Clinic*
Nita Irby, *director of student support services*
John M. Lewkowicz, *director of computing services*
George A. Maylin, *director, Equine Drug Testing Program*
Carol S. Peterson, *director of financial aid/ registrar*
Joseph M. Piekunka, *director of admissions*
Thomas J. Reimers, *director of research and development services*
H. Edward Quay, Jr., *director of human resources*
Fred W. Quimby, *director, Center for Research Animal Resources*
John E. Saidla, *director of continuing education*
James R. Richards, *director, Feline Health Center*
Eric Rosario, *director of development*
Larry J. Thompson, *director of biosafety*
Susanne K. Whitaker, *librarian, Flower-Sprecher Veterinary Library*

College Advisory Council

Karyn Gavzer, MBA
Richard C. Grambow, DVM (chair)
Lynn Jelinski, PhD
Pepi Leids, DVM
Thomas D. MacLeod, MBA
Robert R. Marshak, DVM
Malte von Matthiessen
Scott McVay
Alan G. Merten, PhD
David Shepherd
Mary Sloane
Gus W. Thornton, DVM
Patricia Wehle
William Wilmot, DVM
Harold M. Zweighaft, DVM

Faculty

Anatomy

Professors

de Lahunta, Alexander, DVM, PhD, Dipl ACVIM, James Law Professor of Veterinary Anatomy
Farnum, Cornelia E., DVM, PhD, chair, Department of Anatomy
Noden, Drew M., PhD, anatomy

Associate Professors

Hermanson, John W., MS, PhD, anatomy
Suarez, Susan S., MS, PhD, anatomy

Assistant Professor

Bertram, John E. A., MS, PhD, anatomy

Senior Lecturer

Mizer, Linda A., DVM, MS, PhD, anatomy

Lecturer

Hackett, M. Susan, DVM, anatomy

Instructors

Birnbaum, Nichole, DVM
Haussler, Kevin K., DVM, DC, PhD
Shaw, Jane, DVM

Emeritus Faculty

Evans, Howard E., PhD, veterinary and comparative anatomy
Habel, Robert E., DVM, MSc, MVD, anatomy
Sack, Wolfgang O., DVM, PhD, DrMedVet, anatomy

Clinical Sciences

Professors

Center, Sharon A., DVM, Dipl ACVIM, medicine
Divers, Thomas J., DVM, Dipl ACVIM, medicine
Ducharme, Normand G., DMV, MSc, Dipl ACVS, surgery
Erb, Hollis N., DVM, MS, PhD, epidemiology
Hackett, Richard P., DVM, MS, Dipl ACVS, surgery
Hornbuckle, William E., DVM, Dipl ACVIM, medicine
Kallfelz, Francis A., DVM, PhD, Dipl ACVN, James Law Professor of Medicine, director, Veterinary Medical Teaching Hospital
Kollias, George V., DVM, PhD, Dipl ACZM, Jay Hyman Professor of Wildlife Medicine
Miller, William H., Jr., VMD, Dipl ACVD, dermatology
Moise, N. Sydney, DVM, MS, Dipl ACVIM, cardiology
Rebhun, William C., DVM, Dipl ACVO, Dipl ACVIM, medicine and ophthalmology
Scott, Danny W., DVM, Dipl ACVD, dermatology
Short, Charles E., DVM, MS, PhD, Dipl ACVA, anesthesiology
Smith, Donald F., DVM, Dipl ACVS, surgery, dean of the college
Tennant, Bud C., DVM, Dipl ACVIM, James Law Professor of Comparative Medicine
White, Maurice E., DVM, medicine, chair, Department of Clinical Sciences

Associate Professors

Ainsworth, Dorothy M., DVM, MS, PhD, Dipl ACVIM, medicine
Barr, Stephen C., BVSc, MVS, PhD, Dipl ACVIM, MACVSc, medicine
Daels, Peter F., DVM, PhD, theriogenology
Flanders, James A., DVM, Dipl ACVS, surgery
Fubini, Susan L., DVM, Dipl ACVS, surgery
Gilbert, Robert O., BVSc, MMedVet, Dipl ACT, theriogenology
Gleed, Robin D., BVSc, MRCVS, Dipl ACVA, anesthesiology
Grohn, Yrjo T., BVSc, DVM, MPVM, MS, PhD, epidemiology
Guard, Charles, PhD, DVM, medicine
Harvey, H. Jay, DVM, Dipl ACVS, surgery
Kern, Thomas J., DVM, Dipl ACVO, ophthalmology
Ludders, John W., DVM, Dipl ACVA, anesthesiology
Mohammed, Hussni O., BVSc, DPVM, MPVM, PhD, epidemiology

Nixon, Alan J., BVSc, MS, Dipl ACVS, surgery
 Randolph, John E., DVM, Dipl ACVIM, medicine
 Riis, Ronald C., DVM, MS, Dipl ACVO, ophthalmology
 Scarlett, Janet M., DVM, MPH, PhD, epidemiology, associate dean for student services
 Smith, Mary C., DVM, Dipl ACT, medicine
 Trotter, Eric J., DVM, MS, Dipl ACVS, surgery

Assistant Professors

Moon, Paula E., DVM, Dipl ACVA, anesthesiology
 Reynolds, Arleigh J., DVM, PhD, nutrition
 Simpson, Kenneth W., BVM&S, PhD, MRCVS, Dipl ACVIM, Dipl ECVIM, medicine
 Todhunter, Rory J., BVSc, MS, PhD, Dipl ACVS, surgery
 Warnick, Lorin D., DVM, PhD, Dipl ACVPM, ambulatory and production medicine

Lecturers

Cooley, Anjilla J., DVM, MS, surgery
 Dykes, Nathan L., DVM, Dipl ACVR, radiology
 Goodrich, Laurie R., DVM, MS, surgery
 Irby, Nita, DVM, Dipl ACVO, ophthalmology
 Schweizer, Christine M., DVM, Dipl ACT, theriogenology
 Toll, Jeffrey, VMD, medicine

Instructors

McNamara, Paul, DVM, surgery
 Scrivani, Peter V., DVM, radiology

Emeritus Faculty

Fox, Francis H., DVM, Dipl ACVIM, medicine
 Hillman, Robert B., DVM, MS, Dipl ACT, theriogenology, senior clinician emeritus
 Kirk, Robert W., DVM, Dipl ACVIM, Dipl ACVD, Dipl ABVP, medicine
 Lowe, John E., DVM, MS, surgery
 McEntee, Kenneth, DVM, PhD, Dipl ACVP, Dipl ACT, pathology
 Melby, Edward C., Jr., DVM, Dipl ACLAM, medicine
 Norcross, Neil L., MS, PhD, immunology
 Postle, Donald S., DVM, MS, veterinary science
 Roberts, Stephen J., DVM, MS, Dipl ACT, medicine, theriogenology
 Schryver, Herbert F., DVM, PhD, nutrition

Postdoctoral Associate

Abou-Madi, Noha, DVM, MSc, wildlife medicine

Diagnostic Laboratory

Professors

Henion, John D., MS, PhD, toxicology
 Reimers, Thomas J., MS, PhD, endocrinology

Associate Professors

Chang, Yung-Fu, DVM, MS, PhD, Dipl ACVM, microbiology
 Dubovi, Edward J., MS, PhD, microbiology
 Jacobson, Richard H., MS, PhD, immunoparasitology
 Lein, Donald H., DVM, PhD, Dipl ACVP, theriogenology; director, Diagnostic Laboratory
 Maylin, George A., DVM, MS, PhD, toxicology and environmental health
 Shin, Sang J., DVM, Dipl ACVM, microbiology

Assistant Professors

McDonough, Patrick L., MS, PhD, microbiology
 Thompson, Larry J., DVM, PhD, Diagnostic Laboratory, director of biosafety

Senior Research Associates

Catalfamo, James, MS, PhD, comparative hematology
 Dewey, Elizabeth A., DVM, equine drug testing and research
 Gonzalez, Ruben N., DVM, MPVM, PhD, microbiology, QMPS
 Kim, Sung G., MS, PhD, Diagnostic Laboratory
 Schanbacher, Barbara, DVM, endocrinology
 Wade, Susan E., MA, PhD, parasitology

Research Associates

Wachs, Timothy, MS, PhD, analytical toxicology
 Zylich, Nancy, BS, Diagnostic Laboratory

Research Support Specialists

Bigler, Laura L., MS, PhD, extension
 Harpending, Peter R., MS, bacteriology
 Ziegler, Peter E., BA, parasitology

Senior Extension Associates

Bennett, Gary J., DVM, Diagnostic Laboratory, QMPS, Potsdam
 Brooks, Marjory, DVM, comparative hematology
 Brunner, Michael A., PhD, DVM, Diagnostic Laboratory
 Richards, James R., DVM, Cornell Feline Health Center
 Rossiter, Christine, MS, DVM
 Saidla, John E., DVM, dentistry, director of continuing education
 Schulte, Hal F., III, MS, DVM, QMPS, Geneseo
 Stehman, Susan M., MS, VMD
 Wilson, David J., DVM, MS, Diagnostic Laboratory, QMPS, Ithaca

Field Veterinarian

Julius, Frederic S., DVM, QMPS, Cobleskill

Instructors

Battison, Andrea, DVM, MVSc, clinical pathology
 Hurley, Julie J., DVM, MS, PhD, CRAR, assistant director, farm animals
 Hurley, Richard J., DVM, MS, PhD, CRAR, assistant director, laboratory animals
 Lee, David, DVM, endocrinology

Adjunct Faculty

House, James A., DVM, MS, PhD
 Torres, Alphonso, DVM, MS, PhD

James A. Baker Institute for Animal Health

(Academic department affiliation in parentheses.)

Professors

Aguirre, Gustavo D., VMD, PhD, Dipl ACVO, Alfred H. Caspary Professor of Ophthalmology (Clinical Sciences)
 Antczak, Douglas F., VMD, PhD, Dorothy Havemeyer McConville Professor of Equine Medicine, director, Baker Institute (Microbiology and Immunology)
 Appel, Max J., DVM, PhD, virology (Microbiology and Immunology)
 Bell, Robin G., PhD, immunology (Microbiology and Immunology)
 Carmichael, Leland E., DVM, PhD, Dipl ACVM, John M. Olin Professor of Virology (Clinical Sciences)
 Lust, George, PhD, physiological chemistry (Microbiology and Immunology)

Associate Professors

Appleton, Judith A., MS, PhD, immunology (Microbiology and Immunology)
 Meyers-Wallen, Vicki N., VMD, PhD, Dipl ACT, comparative medical sciences (Anatomy)
 Parrish, Colin R., PhD, virology (Microbiology and Immunology)

Assistant Professors

MacLeod, James N., VMD, PhD, molecular genetics (Physiology)
 Ray, Jharna, MS, PhD, biochemistry (Physiology)

Senior Research Associates

Acland, Gregory M., BVSc, Dipl ACVO, ophthalmology
 Ray, Kunal, MS, PhD, molecular genetics
 Wurster, Nancy Burton, MS, PhD, physiological chemistry

Emeritus Faculty

Sheffy, Ben E., MS, PhD, nutrition, Alfred H. Caspary Professor of Nutrition, emeritus

Microbiology and Immunology

Professors

Avery, Roger J., PhD, virology, chair, Department of Microbiology and Immunology
 Bloom, Stephen E., MS, PhD, avian medicine
 Bowser, Paul R., MS, PhD, aquatic animal medicine
 Campbell, S. Gordon, BVMS, MRCVS, MVSc, PhD, microbiology
 Dietert, Rodney R., PhD, immunology and genetics
 Marsh, James A., MS, PhD, immunology and animal physiology
 McGregor, Douglas D., MD, D Phil, immunology, associate dean for research and graduate education
 Naqi, Syed A., BVSc, MS, PhD, Dipl ACVM, avian medicine
 Schat, Karel A., DVM, PhD, avian medicine

Associate Professors

Bowman, Dwight D., MS, PhD, parasitology
 Casey, James W., PhD, virology

Assistant Professors

Baines, Joel D., VMD, PhD, virology
 Clark, Theodore G., PhD, parasitology and immunology
 Denkers, Eric, PhD, immunology
 Pearce, Edward J., PhD, parasitology and immunology
 Tullson, Elaine D., PhD, microbiology
 Whittaker, Gary R., PhD, virology
 Senior Extension Associate
 Lucio-Martinez, Benjamin, DVM, MS, PhD, avian medicine
 Senior Lecturer
 Winter, Lola E., MS, microbiology

Senior Research Associates

Golemboski, Karen A., PhD, immunology
 Sandhu, Tirath S., BVSc, MS, PhD, avian medicine
 Shawky, Samia, DVM, PhD, avian medicine

Instructor

Trotter, Karen M., PhD

Emeritus Faculty

Bruner, Dorsey W., PhD, DVM, Dipl ACVM, ABM, microbiology

Calnek, Bruce W., DVM, MS, Dipl ACVM, Dipl ACPV, avian medicine, Rudolph J. and Katharine L. Steffen Professor of Veterinary Medicine
 Cole, Randall K., PhD, avian medicine
 Fabricant, Julius, VMD, MS, PhD, avian medicine
 Georgi, Jay R., DVM, PhD, parasitology
 Gillespie, James H., VMD, Ch Dipl ACVM, microbiology
 Hitchner, Stephen B., VMD, Dipl ACVM, avian medicine
 Leibovitz, Louis, VMD, aquatic animal medicine
 Noronha, Fernando M., DVM, virology
 Poppensiek, George C., VMD, MS, Dipl ACVM, Dipl ACVPM, James Law Professor of Comparative Medicine, former dean of the college
 Scott, Fredric W., DVM, PhD, Dipl ACVM, virology
 Winter, Alexander J., DVM, MS, PhD, Dipl ACVM, James Law Professor of Veterinary Microbiology

Adjunct and Courtesy Faculty Members

Blissard, Gary W., MS, PhD
 Rumsey, Gary L., MS, PhD, avian and aquatic medicine
 Schachte, John, MS, PhD, aquatic animal medicine

Pathology

Professors

Cooper, Barry J., BVSc, PhD, Dipl ACVP, pathology
 King, John M., DVM, PhD, Dipl ACVP, pathology
 Lewis, Robert M., DVM, Dipl ACVP, pathology
 Minor, Ronald R., VMD, PhD, pathology
 Pauli, Bendicht U., DVM, PhD, pathology, chair, Department of Pathology
 Phemister, Robert D., DVM, PhD, Dipl ACVP, pathology, former dean of the college
 Quimby, Fred W., VMD, PhD, Dipl ACLAM, pathology
 Schlafer, Donald H., DVM, MS, PhD, Dipl ACVP, Dipl ACT, Dipl ACVM, pathology
 Summers, Brian A., BVSc, MSc, PhD, Dipl ACVP, pathology
 Yen, Andrew, MS, PhD, pathology

Associate Professors

Blue, Julia T., DVM, PhD, Dipl ACVP, clinical pathology
 French, Tracy W., DVM, Dipl ACVP, clinical pathology
 Guan, Jun-Lin, PhD, pathology

Assistant Professors

Levine, Roy, MA, PhD, pathology
 Stokol, Tracy, BVSc, MRCVS, PhD, Dipl ACVP, clinical pathology
 Valentine, Beth A., DVM, PhD, Dipl ACVP, pathology
 Winand, Nena J., MS, DVM, PhD, pathology

Senior Research Associate

Abdel-Ghany, Mossaad, MSc, PhD

Research Associates

Elble, Randolph C., PhD
 Wootton, Joyce, PhD

Emeritus Faculty

Bentinck-Smith, John, DVM, Dipl ACVP, clinical pathology
 Boyer, Clyde I., Jr., VMD, MS, Dipl ACLAM, laboratory animal medicine
 Krook, Lennart P., DVM, PhD, pathology

McEntee, Kenneth, DVM, Dipl ACVP, pathology

Courtesy Appointments

Donnelly, Thomas, BVSc, Dipl ACLAM, laboratory animal medicine
 Nguyen, H. T., VMD, Dipl ACLAM, Dipl ACVP
 Nosanchuk, Jerome S., MD, clinical pathology
 Posso, Manuel, MD, comparative pathology
 Suter, Maja, DVM, PhD, Dipl ACVP, pathology

Adjunct Faculty

Lein, Donald, DVM, PhD, Dipl ACVP, theriogenology; director, Diagnostic Laboratory
 Miller, William, VMD, Dipl ACVD, dermatopathology
 Scott, Danny, DVM, Dipl ACVD, dermatopathology
 Shalloway, David, MS, PhD, biochemistry, molecular, and cell biology

Postdoctoral Fellows

Zheng, Chuanhai, PhD

Pharmacology

Professors

Cerione, Richard A., PhD, pharmacology
 Oswald, Robert E., PhD, pharmacology
 Schwark, Wayne S., DVM, MSc, PhD, pharmacology
 Sharp, Geoffrey W.G., PhD, DSc, pharmacology, chair, Department of Pharmacology

Associate Professors

Fewtrell, Clare M. S., D Phil, pharmacology
 Nowak, Linda M., PhD, pharmacology
 Weiland, Gregory A., PhD, pharmacology

Assistant Professor

Brown, H. Alex, PhD, pharmacology

Senior Research Associate

Manor, Danny, PhD

Research Associates

Bagrodia, Shubha O., PhD
 Erickson, Jon W., PhD
 Nassar, Nicolas, PhD
 Niu, Li, PhD
 Sen Singh, Ugra, PhD
 Straub, Susanne G., PhD
 Yang, Wannian

Postdoctoral Associates

Cao, Jiancheng, PhD
 Chen, Chih-Chien, PhD
 Daniel, Samira, PhD
 Hong, Elizabeth, PhD
 Li, Qiubo, PhD
 Mahmoud, Sahar, PhD
 Osman, Mahasin, PhD
 Wo, Galen, PhD
 Wu, Wen Jin, MD

Visiting Professors

Friedberg, Ilan, PhD
 Noda, Mitsuhiro, MD, MEng

Physiology

Professors

Beyenbach, Klaus W., PhD, physiology, College of Agriculture and Life Sciences
 Fortune, Joanne E., MS, PhD, physiology
 Houpt, Katherine A., VMD, PhD, Dipl ACVB, physiology

Houpt, T. Richard, VMD, MS, PhD, physiology
 Nathanielsz, Peter W., MB, PhD, ScD, MD, James Law Professor of Reproductive Physiology
 Quaroni, Andrea, PhD, physiology, College of Agriculture and Life Sciences
 Robertshaw, David, BVMS, PhD, physiology, acting associate dean for academic programs
 Wasserman, Robert H., MS, PhD, James Law Professor of Physiology
 Wootton, John F., MS, PhD, biochemistry, acting chair, Department of Physiology

Associate Professors

Corradino, Robert A., MS, PhD, physiology, College of Agriculture and Life Sciences
 Gilmour, Robert F., Jr., PhD, physiology
 Loew, Ellis R., MA, PhD, physiology, College of Agriculture and Life Sciences

Assistant Professor

Roberson, Mark S., MS, PhD, physiology

Senior Lecturers

McFadden, Carol H., MAT, PhD, physiology
 Rawson, Richard E., DVM, PhD, physiology

Senior Research Associates

Concannon, Patrick W., MS, PhD, physiology
 McDonald, Thomas, MS, PhD, physiology
 Wentworth, Richard A., MS, PhD, physiology

Research Associates

Berghorn, Kathie, PhD
 Ding, Xiu-Ying, MD
 Li, Cun, MD
 Tabb, Joel, PhD
 Wu, Wen Xuan, MD, PhD

Emeritus Faculty

Dobson, Alan, MA, PhD, ScD, physiology
 Gasteiger, Edgar L., MS, PhD, physiology
 Hansel, William, MS, PhD, Liberty Hyde Bailey Professor of Animal Physiology
 Lengemann, Fred W., MNS, PhD, physiology
 Sellers, Alvin F., VMD, MSc, PhD, physiology
 Tapper, Daniel N., VMD, PhD, physiology

Postdoctoral Associates

Kito, Seiji, PhD
 Wang, Lijuan, MS, PhD

Academic Calendar for 1997–1998

Fall Semester	Class of 2001	Class of 2000	Class of 1999	Class of 1998
Orientation/ registration	August 18–20, 1997	August 26–27, 1997	August 26–27, 1997	Clinical Rotations: September 8, 1997 to January 4, 1998
Instruction begins	August 21, 1997	August 18, 1997	August 18, 1997	
Fall recess	October 13–14, 1997	September 25–28, 1997	October 13–14, 1997	
Thanksgiving recess	November 27–28, 1997	November 27–28, 1997	November 27–28, 1997	
Last day of classes	December 19, 1997	December 19, 1997	December 19, 1997	
Examination periods	during term	December 16–18, 1997	during term	
Spring Semester	Class of 2001	Class of 2000	Class of 1999	Class of 1998
Registration	January 16, 1998	January 16, 1998	January 16, 1998	Distribution Courses: January 5 to May 15, 1998
Instruction begins	January 5, 1998	January 19, 1998	January 19, 1998	
Spring recess	March 16–20, 1998	March 16–20, 1998	variable	Clinical Rotations: January 5 to May 17, 1998
Last day of classes	May 15, 1998	May 22, 1998	May 17, 1998	
Examination periods	May 18–22, 1998	during term	during term	
Commencement				May 24, 1998

This calendar is subject to modification and is not legally binding.

In enacting this calendar, the university has scheduled classes, laboratories, and examinations on religious holidays. It is the intent of the university that students who miss those activities because of religious observances be given adequate opportunity to make up the missed work.

Cornell University
USPS 132-860
College of Veterinary Medicine
Office of Admissions
S1-006 Schurman Hall
Ithaca, New York 14853-6401

Periodicals